



AORTIC INTERNATIONAL CANCER CONFERENCE

CANCER IN AFRICA:
BRIDGING SCIENCE
AND HUMANITY

21 – 24 NOVEMBER 2013
DURBAN, SOUTH AFRICA

ABSTRACT PUBLICATION

Tykerb[®]
lapatinib ditosylate



Inhibiting receptors from the inside gives hope for the patient

Tykerb[®] plus capecitabine provides a NEW way to treat ErbB2 (HER2)-positive advanced or metastatic breast cancer following treatment that has included therapy with trastuzumab

TYKERB Tablets (Reg. No. 42/26/0275). Each film-coated tablet contains lapatinib ditosylate monohydrate equivalent to 250 mg lapatinib. **PHARMACOLOGICAL CLASSIFICATION:** A 26 Cytostatic agents. **INDICATIONS:** For the treatment of patients with advanced or metastatic breast cancer whose tumours overexpress HER2 (neu/ ErbB2) in combination with capecitabine and who have received prior therapy including trastuzumab. **CONTRA-INDICATIONS:** In patients with hypersensitivity to any of the ingredients. Also refer to prescribing information for capecitabine. **WARNINGS:** Diarrhoea (all grades), has been reported with TYKERB treatment. Proactive management of diarrhoea with anti-diarrhoeal agents is important. Severe cases may require administration of oral or intravenous electrolytes and fluids, and interruption or discontinuation of therapy. Caution when administering to patients with conditions that could impair liver. Liver should be evaluated prior to initiation of treatment and should continue to be evaluated during treatment to ensure that liver does not decline to an unacceptable level. Patients should be monitored for pulmonary symptoms indicative of interstitial lung disease/pneumonia. Hepatotoxicity has been observed in clinical trials and postmarketing experience. Hepatotoxicity may be severe and deaths have been reported. Hepatotoxicity may occur days to several months after initiation of treatment. Liver function tests should be monitored before initiation of treatment, every 4-6 weeks during treatment, and as clinically indicated. If changes in liver function occur, therapy should be discontinued and patients should not be retreated. Patients who develop hepatotoxicity while on therapy, should have treatment discontinued and should not be retreated. **INTERACTIONS:** Co-administration with known inhibitors (e.g. ketoconazole or itraconazole) or inducers (e.g. rifampin, carbamazepine, or phenytoin) of CYP3A4 should proceed with caution and clinical response and adverse events should be carefully monitored. Caution should be exercised when dosing concurrently with medications with narrow therapeutic windows that are substrates of CYP3A4 or CYP2C8. **PREGNANCY AND LACTATION:** Should not be used during pregnancy. Women of childbearing potential should be advised to use adequate contraception and avoid becoming pregnant while receiving treatment. Breastfeeding should be discontinued in women who are receiving therapy. **DOSE AND DIRECTIONS FOR USE:** TYKERB is taken in combination with capecitabine. The recommended dose is 1250 mg (i.e. five tablets) once daily continuously, at least one hour before, or at least one hour after food. Missed doses should not be replaced and the dosing should resume with the next scheduled daily dose. The recommended dose of capecitabine is 2000 mg/m²/day taken in 2 doses 12 hours apart on days 1-14 in a 21 day cycle, with food or within 30 minutes after food. **Dose delay and dose reduction:** Cardiac events: should be discontinued in patients with symptoms associated with decreased LVEF and may be restarted at a reduced dose (1000 mg/day) after a minimum of 2 weeks if the LVEF recovers to normal and the patient is asymptomatic. Interstitial lung disease/pneumonia: Should be discontinued in patients who experience pulmonary symptoms indicative of interstitial lung disease/pneumonia which are NCI CTCAE grade 3 or greater. **Other toxicities:** Discontinuation or interruption of dosing may be considered when a patient develops toxicity greater than or equal to grade 2 on the NCI CTCAE. Dosing can be restarted at 1250 mg/day when the toxicity improves to grade 1 or less. If the toxicity recurs, then restart at a lower dose (1000 mg/day). The prescribing information for capecitabine should be consulted for guidance on dose delay and dose reduction recommendations for capecitabine. **Children:** Safety and efficacy has not been established. **Elderly:** No overall differences in safety of the combination were observed between these subjects and younger subjects. **SIDE EFFECTS AND SPECIAL PRECAUTIONS:** Very common effects include anorexia, diarrhoea, which may lead to dehydration, nausea, vomiting, rash (including dermatitis acneiform) and fatigue. Common side effects include decreased LVEF. Uncommon side effects include interstitial lung disease/pneumonia, hyperbilirubinaemia and hepatotoxicity. Rare side effects include hypersensitivity reactions including anaphylaxis. The following additional adverse reactions have been reported combination with capecitabine include dyspepsia, dry skin, stomatitis, constipation, abdominal pain, palmar-plantar erythrodysesthesia, mucosal inflammation, pain in extremity, back pain, headache and insomnia. **MANAGEMENT OF OVERDOSSAGE:** There is no specific antidote. There has been a report of one patient who took an overdose who suffered grade 3 diarrhoea and vomiting on day 16. The symptoms resolved following IV hydration and interruption of treatment. For full prescribing information refer to the package insert approved by the medicines regulatory authority, Apollaris-ClaxoSmithKline South Africa (Pty) Limited, Co. Reg. No. 1948/03/015/07, 57 Sloane Street, Bryanston, 2021, TYK/011/014. Marketed by Aspen Pharmaceur Building 12, Healthcare Park, Woodlands Drive, Woodmead, 2191, A12653 02/11.



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ABSTRACT PUBLICATION

This abstract publication contains the abstracts from the AORTIC 2013 Call for Abstracts which will be given as oral or poster presentations. It also contains abstracts from many of the Invited Speakers on the topics they will address in workshops and plenary sessions.

Use this programme and poster schedule in conjunction with the abstract publication. If a presentation in the programme or poster schedule has an abstract, it will be found under the presenter's last name in the abstract publication. The abstracts are listed alphabetically by the corresponding author's (or presenter's) last name.

CONFERENCE PROCEEDINGS

All delegates received the conference proceedings in their delegate bag: the conference handbook and this abstract publication USB flash drive. Both contain the schedule at a glance, the programme and the poster schedule.

PROGRAMME

Refer to the detailed programme to find out what is happening: who is presenting, what topic is being presented on, who is chairing the session, what time it is happening, and in which venue.

POSTER SCHEDULE

Refer to the poster schedule to find out which posters are being presented each day, along with their corresponding authors, titles and poster numbers. To locate a particular poster on the day it is being displayed, look for the poster number in the poster schedule then follow the signage in the poster display to find the poster. The poster display is in Hall 3. Posters are displayed for one day and change at the beginning of each day, so be sure to view them daily.

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PRE-CONFERENCE WORKSHOPS | WEDNESDAY, 20 NOVEMBER

07h00 - 17h30	Registration				
09h00 - 10h30	AORTIC-IPOS ACADEMY	EMBLEM AND SELECTED NCI FUNDED RESEARCH ON BURKITT LYMPHOMA	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM	CANCER ADVOCACY MASTERS TRAINING WORKSHOP <i>(by invitation)</i>	
10h30 - 11h00	Tea Break				
11h00 - 13h00	AORTIC-IPOS ACADEMY	EMBLEM AND SELECTED NCI FUNDED RESEARCH ON BURKITT LYMPHOMA	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM	CANCER ADVOCACY MASTERS TRAINING WORKSHOP <i>(by invitation)</i>	
13h00 - 14h30	Lunch				
14h30 - 17h30	AORTIC-IPOS ACADEMY	EMBLEM AND SELECTED NCI FUNDED RESEARCH ON BURKITT LYMPHOMA	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM	CANCER ADVOCACY MASTERS TRAINING WORKSHOP <i>(by invitation)</i>	

PRE-CONFERENCE WORKSHOPS | THURSDAY, 21 NOVEMBER

07h00 - 17h30	Registration				
09h00 - 10h30	CERVICAL CANCER PREVENTION I	BEST PRACTICE ON PROSTATE CANCER DIAGNOSIS AND TREATMENT	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM	CANCER ADVOCACY WORKSHOP AND EXPO	BIG CAT GRANTS I
10h30 - 11h00	Tea Break / Exhibition / Posters				
11h00 - 13h00	CERVICAL CANCER PREVENTION II	CANCER AND SEXUAL HEALTH	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM	CANCER ADVOCACY WORKSHOP AND EXPO	THE AFRICAN PERSPECTIVE ON CANCER CONTROL AND NCDS
13h00 - 14h30	Lunch / Exhibition / Posters				
13h15 - 14h15	CANCER SURVIVORS FORUM	NCDS AFRICAN OUTCOMES	MSD SYMPOSIUM		
14h30 - 17h30	HPV CERVICAL CANCER NETWORK IN FRANCOPHONE AFRICA	THE CASE FOR CANCER REGISTRIES IN AFRICA	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM	CANCER ADVOCACY WORKSHOP AND EXPO	MD ANDERSON GLOBAL INITIATIVE FOR CANCER CARE IN AFRICA
18h30 - 00h00	OPENING CEREMONY AND WELCOME RECEPTION				

DAY ONE | FRIDAY, 22 NOVEMBER

07h00 - 17h30	Registration				
07h00 - 07h50	NIH GRANTS MANAGEMENT TRAINING PROGRAMME		RADIATION ONCOLOGY		
08h00 - 08h30	CAN GLOBAL HEALTH STRATEGIES IMPACT CANCER CONTROL IN AFRICA?				
08h30 - 09h00	OVERVIEW OF CANCER IN AFRICA				
09h10 - 10h30	PATHOLOGY		UROLOGY		
10h30 - 11h00	Tea Break / Exhibition / Posters				
11h00 - 13h00	PATHOLOGY I	PALLIATIVE CARE I	NATIONAL CANCER CONTROL PLANS	BIG CAT GRANTS II	FREE COMMUNICATION OF ABSTRACTS I
13h00 - 14h30	Lunch / Exhibition / Posters				
13h15 - 14h15	VARIAN SYMPOSIUM		GSK VACCINES SYMPOSIUM		
14h30 - 17h30	PATHOLOGY II	PALLIATIVE CARE II	AFRICAN CANCER REGISTRY NETWORK	RADIATION AND CHEMOTHERAPY	FREE COMMUNICATION OF ABSTRACTS II
18h00 - 20h00	AORTIC GENERAL ASSEMBLY				

DAY TWO SATURDAY, 23 NOVEMBER					
07h00 - 17h30	Registration				
07h00 - 07h50	PSYCHOSOCIAL IMPACT OF CANCER DIAGNOSIS		STATE OF MEDICAL EDUCATION IN AFRICA		
08h00 - 08h30	PLACING PATIENTS' HUMANITY AT THE CENTRE OF OUR CARE				
08h30 - 09h00	AFRICAN PALLIATIVE CARE AND ITS CONTRIBUTION TO THE WORLD				
09h10 - 10h30	BREAST CANCER		HAEMATOLOGY		
10h30 - 11h00	Tea Break / Exhibition / Posters				
11h00 - 13h00	BREAST CANCER I	LIVER CANCER	TOBACCO-RELATED CANCERS	PAIN MANAGEMENT	FREE COMMUNICATION OF ABSTRACTS III
13h00 - 14h30	Lunch / Exhibition / Posters				
13h15 - 14h15	ROCHE SYMPOSIUM	GSK ONCOLOGY SYMPOSIUM	GUIDELINES FOR CANCER MANAGEMENT IN AFRICA		
14h30 - 17h30	BREAST CANCER II	PROSTATE CANCER	JOINT AORTIC-ASCO SYMPOSIUM: CANCER BIOLOGY	ONCOLOGY NURSING	FREE COMMUNICATION OF ABSTRACTS IV
19h30 - 00h00	GALA DINNER				
DAY THREE SUNDAY, 24 NOVEMBER					
07h00 - 14h00	Registration				
07h00 - 07h50	PUBLIC-PRIVATE PARTNERSHIPS		VACCINE IMPLEMENTATION		
08h00 - 08h30	COMBATING CERVICAL AND BREAST CANCER IN AFRICA				
08h30 - 09h00	VIRUSES AND CANCER				
09h10 - 10h30	ENVIRONMENT AND OCCUPATION IN CANCER		GYNAECOLOGICAL CANCERS		
10h30 - 11h00	Tea Break / Exhibition / Posters				
11h00 - 13h00	PAEDIATRIC ONCOLOGY	AIDS-RELATED MALIGNANCIES	COLORECTAL CANCER	AORTIC'S CONTINENTAL CANCER CONTROL PLAN	FREE COMMUNICATION OF ABSTRACTS V
13h15 - 14h00	CLOSING SESSION				

07h00 - 17h30	Registration Registration Foyer			
Workshops	Meeting Room 21DEFG	Meeting Room 21ABC	Meeting Room 11	Meeting Room 12
09h00 - 10h30	AORTIC-IPOS ACADEMY	EMBLEM AND SELECTED NCI FUNDED RESEARCH ON BURKITT LYMPHOMA Supported by Microgem / NCI (USA)	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM: THE CURRENT STATE OF ESOPHAGEAL CANCER RESEARCH	CANCER ADVOCACY MASTERS TRAINING WORKSHOP (by invitation)
CHAIR(S)	Chairs: C Asuzu (Nigeria), JC Holland (USA), M Lazenby (USA)	Chairs: K Bhatia (USA), S Mbulaiteye (USA), K Simbiri (USA)	Chairs: P Taylor (USA), V Sewram (South Africa)	Chairs: F Odedina (USA), R Segal (USA)
PROGRAMME	Psychosocial and spiritual factors in delayed diagnosis Speakers J Harford (USA) The three most prominent features of cancer in Africa: late diagnosis, late diagnosis and late diagnosis C Asuzu (Nigeria) Spiritual factors in delay M Lazenby (USA) Discussion	Speakers S Mbulaiteye (USA) EMBLEM collaboration: objectives, design, and timelines M Ogwang (Uganda) EMBLEM status update in Uganda E Kawira (Tanzania) EMBLEM status update in Tanzania C Tenge (Kenya) EMBLEM status update in Kenya K Bhatia (USA) Molecular studies in the EMBLEM study	Overview Speakers V Sewram (South Africa) Welcome F Kamangar (USA) World and low-risk population overview Y-L Qiao (China) The China story R Malekzadeh (Iran) The Iran story V Sewram (South Africa) The South Africa story	Speakers F Odedina (USA) Welcome and opening remarks L Denny (South Africa) Cancer in Africa F Odedina (USA) ABCs of Cancer Advocacy Plan R Segal (USA) Evaluating your advocacy program
10h30 - 11h00	Tea Break Hall 3			
Workshops	Meeting Room 21DEFG	Meeting Room 21ABC	Meeting Room 11	Meeting Room 12
11h00 - 13h00	AORTIC-IPOS ACADEMY	EMBLEM AND SELECTED NCI FUNDED RESEARCH ON BURKITT LYMPHOMA Supported by Microgem / NCI (USA)	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM: THE CURRENT STATE OF ESOPHAGEAL CANCER RESEARCH	CANCER ADVOCACY MASTERS TRAINING WORKSHOP (by invitation)
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PROGRAMME	Education and communication to improve care Speakers V Odigie (Nigeria) Doctor-patient communication by mobile cell phone in breast cancer M Fitch (Canada) and D McLeod (Canada) The use of distance modalities and the role of interpersonal education teaching and learning centered care B Wiafe-Addai (Ghana) Psychosocial supports for breast cancer O Campbell (Nigeria) and C Asuzu (Nigeria) Psychosocial services and training models in Africa	NCI funded Burkitt lymphoma research in Kenya Speakers J Otieno (Kenya) Burkitt lymphoma incidence in Western Kenya: experience from JOTHR A Moormann (USA) EBNA T cell responses in Burkitt lymphoma in Kenya O Sumba (Kenya) Burkitt lymphoma incidence in Nyanza Province: role of malaria K Simbiri (USA) Dealing with cancer in Africa in the 21st century: a paradigm shift F Buonaguro (Italy) Opportunities for African scientists to publish on the link between cancer and infections J Harford (USA) Capacity building: catalytic initiatives by NCI Panel discussion	Etiology of EC in low-middle income countries Speakers F Kamangar Smoking, alcohol and opium P Taylor (USA) Nutrition and esophageal squamous cell carcinoma C Abnet (USA) Tooth loss/microbiome F Sitas (Australia) Interscope study: association between HPV and oesophageal cancer W Gelderblom (South Africa) Mycotoxins	Concurrent knowledge sessions: based on advocacy focus Speakers K Asante-Shongwe (South Africa) Political advocacy F Bangbose (Nigeria) Education advocacy M Scroggins (USA) Research advocacy V Simons (Spain) Fundraising advocacy E Kandusi (Tanzania) Support advocacy: to cancer patients, spouse, relatives and friends K Ashing-Giwa (USA) Community outreach advocacy RR Reams (USA) Teaching techniques and effective strategies for training
13h00 - 14h30	Lunch Hall 3			
Workshops	Meeting Room 21DEFG	Meeting Room 21ABC	Meeting Room 11	Meeting Room 12
14h30 - 17h30	AORTIC-IPOS ACADEMY	EMBLEM AND SELECTED NCI FUNDED RESEARCH ON BURKITT LYMPHOMA Supported by Microgem / NCI (USA)	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM: THE CURRENT STATE OF ESOPHAGEAL CANCER RESEARCH	CANCER ADVOCACY MASTERS TRAINING WORKSHOP (by invitation)
CHAIR(S)	Chairs: C Asuzu (Nigeria), JC Holland (USA), M Lazenby (USA)	Chairs: K Bhatia (USA), S Mbulaiteye (USA), DC Stefan (South Africa), K Simbiri (USA)	Chairs: C Abnet (USA), Y-L Qiao (China)	Chairs: F Odedina (USA), R Segal (USA)
PROGRAMME	Routes to change through collaboration Speakers F Odedina (USA) Patient advocate's role in enhancing care of the whole patient S Ghosh (USA) Global health initiatives models and how they may contribute to care of the whole patient Group discussions	Burkitt lymphoma registry and pathology Speakers R Newton (UK) Overview of comprehensive population-based BL registration in the Africa Cancer Registry Network L Ayers (USA) Accuracy of histopathology: importance for epidemiology and clinical studies Burkitt lymphoma treatment and consortia development Speakers F Okuku (Uganda) Overview of current status of Burkitt lymphoma treatment in Africa A Moormann (USA) Burkitt lymphoma in Western Kenya: a prospective survival study from 2003 - 2012 DC Stefan (South Africa) Burkitt lymphoma in African HIV positive children: what is different about them? C Williams (USA) Capacity building hematology / oncology in African countries D Robinson (USA) Opportunity for forming a consortium on Burkitt lymphoma in Africa Panel Discussion	Etiology of EC in low-middle income countries Speakers S Dawsey (USA) Polycyclic aromatic hydrocarbons / thermal injury R Fagundes (Brazil) Mate A Goldstein (USA) Genetics of esophageal cancer Early detection and treatment Speakers S Dawsey (USA) Early detection G Wang (China) Endoscopic treatment W-Q Wei (China) The EDETEC program in China	Concurrent action sessions: case studies and advocacy plans Speakers K Asante-Shongwe (South Africa) Political advocacy F Bangbose (Nigeria) Education advocacy M Scroggins (USA) Research advocacy V Simons (Spain) Fundraising advocacy E Kandusi (Tanzania) Support advocacy K Ashing-Giwa (USA) Community outreach advocacy C Ragin (USA) Partnering with researchers for effective advocacy RR Reams (USA) Teaching techniques and effective strategies for training 19h00 - 20h00 Program Exam and Feedback

07h00 - 17h30	Registration Registration Foyer				
Workshops	Hall 2ABFH	Hall 2C	Meeting Room 11	Meeting Room 12	Meeting Room 21DEFG
09h00 - 10h30	CERVICAL CANCER PREVENTION I <i>Supported by IARC/UIICC/WHO</i>	BEST PRACTICE ON PROSTATE CANCER DIAGNOSIS AND TREATMENT	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM: WHERE DO WE GO FROM HERE? A FOCUS ON AFRICA	CANCER ADVOCACY WORKSHOP AND EXPO	BIG CAT GRANTS I <i>Supported by NCI (USA)</i>
CHAIR(S)	Chairs: N Broutet (Switzerland), N Keita (Republic of Guinea), R Sankaranarayanan (France), J Torode (Switzerland)	Chair: S Gueye (Senegal)	Chair: I Parker (South Africa)	Chairs: F Odedina (USA), R Segal (USA)	Chairs: JF Holland (USA), M Williams (USA)
PROGRAMME	Speakers N Keita (Republic of Guinea) Coagulation à froid dans le traitement des néoplasies cervicales intraépithéliales R Sankaranarayanan (France) Cold coagulation in the treatment of cervical neoplasia L Dolman (Canada) Meta-analysis of the efficacy of cold coagulation as a treatment method for cervical intraepithelial neoplasia N Keita (Republic of Guinea) and R Sankaranarayanan (France) Demonstration of the equipment, procedure and discussion on research needed	Speakers T Rebbeck (USA) Biomarkers and prostate cancer S Mante (Ghana) Diagnosis and screening for prostate cancer M Jalloh (USA) Treatment options 1: surgery versus radiation therapy S Gueye (Senegal) Treatment options 2: hormonal therapy, chemotherapy, new systemic therapies	On-going and planned studies in Africa Speakers S Burgert (Kenya) STEP / DIRECT / EXPECT (Kenya) V Sewram (South Africa) SCOPE (South Africa) R White (Kenya) Stenting for palliation of advanced esophageal squamous cell carcinoma C Mathew (UK) Genetic studies of oesophageal cancer in South Africa V McCormack (France) Other nascent studies in Africa N Sewankam (Uganda) The PACT Study	Speakers F Odedina (USA) Opening remarks V Simons (Spain), K Ashing-Giwa (USA) and M Scroggins (USA) The global movement of cancer advocacy S Janse van Rensburg (South Africa) Cancer advocacy in South Africa: the essence of CANSA's watchdog role E Kandusi (Tanzania), K Asante-Shongwe (South Africa) and F Bamgbose (Nigeria) Our voices: model advocacy case studies from Africa R Segal (USA) Evaluating your program for continuous improvement	Speakers M Williams (USA) Overview C Asuzu (Nigeria) A pilot study of patients with cancer and their traditional healers: an approach to potentially delay in cancer diagnosis and treatment C Chigbu (Nigeria) Assessment of the impact of 'see and treat' approach using visual inspection with acetic acid and cryotherapy in the reduction of the burden of cervical cancer in low-income populations P Fernandez (South Africa) Confirming and extending Prostate Cancer Genome-Wide Association Studies in South African men I Mutyaba (Uganda) Access to cancer chemotherapy and predictors of early mortality for childhood cancers in Uganda M Mwachiro (Kenya) Prevalence of esophageal squamous dysplasia at Tenwek Hospital in Western Kenya K Richter (South Africa) Cervical cancer screening using the Aptima HPV E6/E7 mRNA on patient self-collected tampon specimens in Gauteng, South Africa
10h30 - 11h00	Tea Break / Exhibition / Posters Hall 3				
Workshops	Hall 2ABFH	Hall 2C	Meeting Room 11	Meeting Room 12	Meeting Room 21DEFG
11h00 - 13h00	CERVICAL CANCER PREVENTION II <i>Supported by IARC/WHO/UIICC</i>	CANCER AND SEXUAL HEALTH	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM: WHERE DO WE GO FROM HERE? A FOCUS ON AFRICA	CANCER ADVOCACY WORKSHOP AND EXPO	THE AFRICAN PERSPECTIVE ON CANCER CONTROL AND NCDs
CHAIR(S)	Chairs: N Broutet (Switzerland), N Keita (Republic of Guinea), R Sankaranarayanan (France), J Torode (Switzerland)	Chairs: S Gueye (Senegal), L Incrocci (Netherlands)	Chair: F Schüz (France)	Chairs: F Odedina (USA), R Segal (USA)	Chairs: I Adewole (Nigeria) and J-M Dangou (Senegal)
PROGRAMME	Speakers N Broutet (Switzerland) Methodology, key recommendations in the C4-GEp and the new WHO guidelines L Denny (South Africa) / ZM Chirenje (Zimbabwe) Training human resources in the context of national roll-out of cervical screening G Parham (Zambia) 100,000 women screened through the cervical cancer prevention programme in Zambia N Keita (Republic of Guinea) Projets nationaux pour le dépistage des cancers du col en Guinée F Ngabo (Rwanda) What can we learn from national HPV vaccination implementation programmes in Rwanda? J Torode (Switzerland) Opportunities to address the health care professional training needs for optimal scale-up of cervical cancer prevention	Speakers L Incrocci (Netherlands) Is there a sexual life after treatment of prostate cancer? R Boa (South Africa) Impact of gynaecological cancer on sexuality in women M Ndoye (Senegal) Male sexual health and urogenital cancer P Ramlachan (South Africa) Ejaculatory disorders M Wassermann (South Africa) Sex when you're sick: oncosexology	Building collaborations for African studies Speakers J Schüz (France) Gaps that need to be filled Panel discussion	Speakers Master Trainers' presentations Overview of key advocacy programmes: political, education, research, fundraising, support and community outreach Master Trainers' presentations Developing cancer advocacy plan	Speakers J-M Dangou (Senegal) Cancer control in the context of the WHO strategy to combat NCDs S Singh (South Africa) The African initiative against NCDs A Olajide (Ethiopia) Demographic dividends in Africa E Kumakech (Uganda) Expanding cervical and breast cancer screening in Africa
13h00 - 14h30	Lunch / Exhibition / Posters Hall 3				

Lunch Sessions	Meeting Room 11	Meeting Room 12	Meeting Room 21DEFG		
13h15 - 14h15	CANCER SURVIVORS FORUM Discussion	NCDS AFRICAN OUTCOMES: HITTING GLOBAL TARGETS, BUILDING NATIONAL CAPACITY FOR MAKING CANCER A GLOBAL PRIORITY Supported by ACS	MSD SYMPOSIUM <i>Overview of the HPV problem and the role of the quadrivalent HPV vaccine as part of the solution</i>		
CHAIR(S)	Chairs: M Scroggins (USA), B Wiawe-Addai (Ghana)	Chair: H Sears Ward (USA)	Chair: ZM Chirenje (Zimbabwe)		
PROGRAMME	Discussion	Speakers H Sears Ward (USA) Chair's welcome and intro re: global potential of partnerships L Pretorius (South Africa) The power of coalition: campaigning for cancer D Summers (Switzerland) Vaccinating against cancer: bridging the equity gap R Gakunga (Kenya) Advocacy for wider access and policies that will favour uptake of cancer screening services in a changing healthcare environment: the Kenyan situation A McMikel (USA) Launch of Meet the Targets report	Speakers L Denny (South Africa) HPV disease burden and global Gardasil experiences Axios International (speaker TBC) HPV vaccines introduction: experiences in SSA, a review of GAP programs, lessons learnt		
Workshops	Hall 2ABFH	Hall 2C	Meeting Room 11	Meeting Room 12	Meeting Room 21DEFG
14h30 - 17h30	HPV CERVICAL CANCER NETWORK IN FRANCOPHONE AFRICA Supported by INCa France	THE CASE FOR CANCER REGISTRIES IN AFRICA Supported by GICR/ IACR/IARC	AORTIC/IUBMB/NCI (USA) ESOPHAGEAL CANCER SYMPOSIUM: WHERE DO WE GO FROM HERE? A FOCUS ON AFRICA	CANCER ADVOCACY WORKSHOP AND EXPO	MD ANDERSON GLOBAL INITIATIVE FOR CANCER CARE IN AFRICA Supported by MD Anderson Cancer Centre
CHAIR(S)	Chairs: S Gueye (Senegal), X Sastre-Garau (France)	Chairs: D Forman (France), DM Parkin (UK)	Chairs: F Sitas (Australia), V Sewram (South Africa)	Chairs: F Odedina (USA), R Segal (USA)	Chairs: O Bogler (USA), L Denny (South Africa)
PROGRAMME	Speakers M Diop (Senegal) and DC Toureane (Senegal) HPV cervical cancer project and protocols in Senegal N Berthet (Gabon) and IH Koumakpayi (Gabon) HPV cervical cancer project and protocols in Gabon R Njoum (Cameroon) and PM Tebeu (Cameroon) HPV cervical cancer project and protocols in Cameroon J Didi-Kouko Coulibaly (Cote d'Ivoire) and A Horo (Cote d'Ivoire) HPV cervical cancer project and protocols in Cote d'Ivoire Discussion Setting up of an HPV cervical Cancer Network in Francophone Africa: challenges faced in each country and how to establish a network, possibly under the umbrella of AORTIC	Speakers J-M Dangou (Senegal) The central role of cancer registries in NCD surveillance R Zanetti (Italy) Registries and cancer control planning R Swaminathan (India) Registries and cancer outcomes F Bray (France) Transitions in human development and estimates of future burden EJ Kantelhardt (Germany) Female cancer in Ethiopia LM Fernández Garrote (France) Developing material for cancer registry training D Forman (France) The Global Initiative for Cancer Registries in low and middle-income countries (GICR) DM Parkin (UK) The GICR in Africa and the AFCRN	Break out groups Group 1 topic: causes of ESCC (F Sitas and P Taylor) Group 2 topic: early detection/ treatment of ESCC (S Dawsey and G Wang) Group 3 topic: genetic studies of ESCC (C Mathew and C Abnet) Proposals from break out groups Presentation of break out groups' new research proposals for ESCC studies in Africa Meeting wrap-up and action items	Programme Advocacy expo, poster presentations and certification ceremony for Master Trainers Participants Learning session: featured case studies Closing session	Speakers S Ghosh (USA) Networking, partnering and capacity building to advance cancer care globally: MD Anderson's Global Academic Programs A Futreal (USA) Large scale cancer genomics: from science to medicine K Schmelzer (USA) A low-cost optical imaging tool for cervical cancer prevention R Satcher (USA) The use of eHealth for cancer care delivery at a distance R Orlowski (USA) Emerging concepts in the management of multiple myeloma A Brewster (USA) The epidemiology of triple negative breast cancer across the African diaspora M Zafereo (USA) Developing guidelines for thyroid surgery in varying settings on the continent of Africa L Ramondetta (USA) Rethinking clinical trial endpoints for recurrent cervical cancer S Yennu (USA) Closing remarks
18h30 - 00h00	OPENING CEREMONY AND WELCOME RECEPTION DURBAN CITY HALL <i>Transport leaves from outside the Durban ICC from 17h30, and returns to the official conference hotels and the Durban ICC from 22h00.</i>				

07h00 - 17h30	Registration Registration Foyer				
Meet The Experts	Hall 3		Hall 3		
07h00 - 07h50	NIH GRANTS MANAGEMENT TRAINING PROGRAMME		RADIATION ONCOLOGY <i>Supported by Philips Healthcare</i>		
CHAIR(S)	Chairs: R James (USA), F-S Thiam (Senegal)		Chairs: A Elzawawy (Egypt), M Gospodarowicz (Canada) Participants: S Morgan (USA), G Sinelshchikov (South Africa)		
Keynote	Hall 2ABFH				
08h00 - 08h30	CAN GLOBAL HEALTH STRATEGIES IMPACT CANCER CONTROL IN AFRICA?				
CHAIR(S)	Chairs: I Adewole (Nigeria), J-M Dangou (Senegal)				
SPEAKER	Speaker: T Trimble (USA)				
08h30 - 09h00	OVERVIEW OF CANCER IN AFRICA				
CHAIR(S)	Chairs: TE Madiba (South Africa), V Sewram (South Africa)				
SPEAKER	Speaker: J-M Dangou (Senegal)				
09h00 - 09h10	10 minute transition time				
Plenary	Hall 2ABFH		Hall 2C		
09h10 - 10h30	PATHOLOGY		UROLOGY		
CHAIR(S)	Chairs: A Adesina (USA), P Ramdial (South Africa)		Chairs: S Gueye (Senegal), F Odiedina (USA), T Rebbeck (USA)		
PROGRAMME	<p>Speakers</p> <p>S Masood (USA) Pathology as the core foundation for breast cancer care</p> <p>TA Junsaid (Kuwait) Pathology diagnostics in sub-Saharan Africa: the glorious past, current status and recommendations for salvaging the future</p> <p>M Gospodarowicz (Canada) Cancer staging: a fundamental element of cancer control</p>		<p>Speakers</p> <p>L Incrocci (Netherlands) Hypofractionation for prostate cancer</p> <p>S Watya (Uganda) Penile cancer in Africa: impact of HIV epidemic</p> <p>S Gueye (Senegal) Early detection of prostate cancer in Africa: what is possible?</p> <p>D Martin (USA) Building global collaboration for urology research</p> <p>D Seminara (USA) A descriptive database of cancer epidemiology consortia</p>		
10h30 - 11h00	Tea Break / Exhibition / Posters Hall 3				
Workshops	Hall 2ABFH	Hall 2C	Meeting Room 11	Meeting Room 12	Meeting Room 21DEF6
11h00 - 13h00	PATHOLOGY I	PALLIATIVE CARE I	NATIONAL CANCER CONTROL PLANS	BIG CAT GRANTS II <i>Supported by NCI (USA)</i>	FREE COMMUNICATION OF ABSTRACTS I
CHAIR(S)	Chairs: A Adesina (USA), P Ramdial (South Africa)	Chairs: A Merriman (Uganda), F Mwangi-Powell (Kenya)	Chairs: J-M Dangou (Senegal), S Singh (South Africa), A Ullrich (Switzerland)	Chairs: J Harford (USA), JF Holland (USA)	Chairs: B Adediji (USA), C Williams (Canada)
PROGRAMME	<p>Speakers</p> <p>F Ikpat (Angola) Developing a quality management system (QMS) including forms, policies, procedures (SOP) and work charts (work aids), quality indices and monitors, proficiency testing adapted to indigenous practice</p> <p>L Ngendahayo (Burundi) Case presentation I</p> <p>S Sayed (Kenya) Breast cancer: implementing the guidelines with illustrative examples</p>	<p>Speakers</p> <p>F Mwangi-Powell (Kenya) What do we mean by palliative care?</p> <p>S Yennu (USA) Strategies to provide early referral to palliative care so as to improve quality cancer care</p> <p>V Vanderpuye (Ghana) Colorectal cancer</p> <p>M Lazenby (USA) Spirituality and hospice in Africa</p> <p>T Brand (South Africa) Palliative care in children: how to deal with parents and children</p>	<p>Speakers</p> <p>J-M Dangou (Senegal) Introductory notes</p> <p>A Ullrich (Switzerland) Challenges in planning and implementing a comprehensive national cancer control plan in the emerging era of NCD</p> <p>D Ahmadou (Senegal) Strategies for increasing cancer early detection in Africa</p> <p>C Gombé-Mbalawa (Congo) Managing advanced disease and anti-cancer therapies in resource-restricted settings</p> <p>S Singh (South Africa) Considerations on developing a national cancer prevention and control programme for South Africa</p> <p>F Odiedina (USA) The African continent cancer plan 2013 - 2017</p> <p>J Torode (Switzerland) A new international partnership to support and focus national cancer control planning efforts at country level</p>	<p>Speakers</p> <p>J Harford (USA) Overview</p> <p>GO Ogun (Nigeria) Molecular biomarkers for prognostication in nasopharyngeal carcinomas in Nigerians</p> <p>F Okuku (Uganda) Measuring the impact of clinical guidelines for Kaposi Sarcoma in Uganda</p> <p>C Dickens (France) Survival from genetic and genetic susceptibility to invasive breast carcinoma HIV+ and HIV- black South African women</p> <p>L Farrant (South Africa) Life-limiting progressive malignant disease among South Africans: an investigation to determine the prevalence and burden of multidimensional symptoms and quality of life</p> <p>F Onwuwe (Nigeria) Cold coagulation versus cryotherapy for immediate treatment of women who test positive to VIA and VILI in rural African settings</p> <p>S Wafe (USA) Sociocultural factors on health behaviour towards early detection of breast cancer on women who were exposed to breast cancer education in Ghana</p>	<p>Speakers</p> <p>NS Turhal (Turkey) Kras expression in hepatocellular cancer: a Turkish oncology group study</p> <p>C Mathew (UK) Detection of germline and somatic variants associated with oesophageal cancer in South African populations by high throughput genomics</p> <p>H Ashktorab (USA) Novel genes mutation and methylation targets in colon cancer from African Americans using whole exome sequencing</p> <p>F Asirwa (Kenya) Lost-to-follow-up (LTFU) amongst cancer patients seen at an outpatient cancer clinic in a public tertiary hospital in Western Kenya</p> <p>O Ekujumi (Nigeria) Relationship between high risk human papillomavirus genotypes and cervical cytology in HIV positive women in Lagos University Teaching Hospital</p> <p>A Abera (South Africa) Investigating polymorphism in Kaposi's Sarcoma-associated herpes virus g-protein coupled receptor gene in South African Kaposi's Sarcoma tumors</p> <p>W Phipps (USA) HIV progression and human herpes virus-8 replication among Ugandan adults</p> <p>Z Mbulawa (South Africa) Increased high-risk human papillomavirus viral load is associated with cervical abnormal cytology</p> <p>H Simonds (South Africa) HIV status confers an increased risk of haematological toxicity for cervical cancer patients undergoing radical chemoradiation</p> <p>D Kotze (South Africa) HIV related Burkitt lymphoma: treatment outcome in a South African public hospital</p> <p>M Sengayi (South Africa) The use of computerized record linkage for cancer ascertainment in a South Africa HIV cohort</p> <p>R Naidoo (South Africa) Molecular imaging using formalin fixed paraffin embedded (FFPE) gastric cancers</p>

13h00 - 14h30	Lunch / Exhibition / Posters Hall 3				
Lunch Sessions	Meeting Room 11		Meeting Room 12		
13h15 - 14h15	VARIAN SYMPOSIUM <i>Varian comprehensive radiotherapy solutions for the African continent</i>		GSK VACCINES SYMPOSIUM <i>Protection against cervical cancer: what has been achieved?</i>		
CHAIR(S)	Chair: V Ronfle (France)		Chair: I Adewole (Nigeria)		
PROGRAMME	Speakers V Ronfle (France) Varian solutions tailored for Africa T Goei (Netherlands) Assessment on educational needs in Africa J Hollon (USA) Varian's Access to Care Initiative		Speakers I Adewole (Nigeria) Burden of cervical cancer: the African perspective P Stern (UK) Immune parameters of cervical cancer prevention M A-F Seoud (Lebanon) HPV 16/18 AS04-adjuvanted vaccine: robust evidence in cervical cancer prevention		
Workshops	Hall 2ABFH	Hall 2C	Meeting Room 11	Meeting Room 12	Meeting Room 21DEFG
14h30 - 17h30	PATHOLOGY II	PALLIATIVE CARE II	AFRICAN CANCER REGISTRY NETWORK	RADIATION AND CHEMOTHERAPY Supported by IAEA	FREE COMMUNICATION OF ABSTRACTS II
CHAIR(S)	Chairs: A Adesina (USA), P Ramdial (South Africa)	Chairs: O Bogler (USA), JC Holland (USA), DC Stefan (South Africa)	Chairs: C Gombé-Mbalawa (Congo), DM Parkin (UK)	Chairs: A Elzawawy (Egypt), M Gospodarowicz (Canada), V Vanderpuye (Ghana)	Chairs: V Leaner (South Africa), T Rebbeck (USA)
PROGRAMME	Speakers S Masood (USA) Breast and prostate cancer: similarities and differences O Rotimi (UK) Capacity building in the histopathological diagnosis of cancer in sub-Saharan Africa S Dawsey (USA) Current screening and early detection of oesophageal cancer MT Akele (Benin) Fine needle aspiration of the lumps and bumps in the body	Speakers L Ramondetta (USA) Palliative care in women with advanced cervical cancer Z Ali (Kenya) Palliative care in advanced prostate cancer E Mwebesa (Uganda) Palliative care in women with advanced breast cancer JC Holland (USA) What makes people with terminal cancer suffer? T Ngoma (Tanzania) Palliative care in children with Burkitt's lymphoma A Pondy (Cameroon) Wilms' tumour	Speakers AM Finesse (Seychelles) History and development of African Cancer Registry Network (ACRN) DM Parkin (UK) Estimates of cancer incidence and mortality in sub-Saharan Africa in 2012 R Kagunga (Kenya) The costs of cancer registration in sub-Saharan Africa: the case of Kenya E Jedy-Agba (Nigeria) The cancer profile in West Africa DC Stefan (South Africa) Childhood cancer registration in Africa E Chokunonga (Zimbabwe) Time trends in cancer incidence in Africa A Jamal (USA) Breast cancer tumor size and stage in sub-Saharan Africa A Korir (Kenya) Cervical cancer incidence and survival K van Loon (USA) Oesophagus cancer in East Africa: an analysis from four population-based cancer registries	IAEA PACT Mission Speakers E Zubizarreta (Austria) Current status and future need for radiotherapy in Africa S Morgan (Austria) Progress in cancer control in Africa: the value of partnerships S Morgan (Austria) VCCNET Introduction: goals and objectives Speakers M Gospodarowicz (Canada) Quality assurance in radiation therapy S Formenti (USA) Two dimensional breast irradiation technique: cost effectiveness in low resource countries with high volume of locally advanced disease B Jeremic (South Africa) Evidence-based palliative radiotherapy: an African reality V Vanderpuye (Ghana) Managing the complications of androgen deprivation therapy in prostate cancer A Elzawawy (Egypt) Notions of better value radiation therapy and chemotherapy in Africa L van Wijk (South Africa) Questions and answers	Speakers A Odetunde (Nigeria) Immunohistochemistry: a vital tool in the management of cancers in Nigeria RR Reams (USA) SNP in Yoruba population reveals ACBD3 important in prostate cancer L Bohm (South Africa) Performance of invasion markers of the plasminogen activator group in the identification of aggressive and nonaggressive prostate cancer M Moshiri (Canada) HAAH: a novel and predictive serum biomarker for early cancer detection and management A Oyekunle (Nigeria) Survivorship in Nigerian patients with chronic myeloid Leukemia: A study of 527 patients over 10 years FSD Ndiaye (Senegal) Chronic myeloid leukaemia in Senegal; epidemiology, clinic, cytogenetic and prognosis aspects: follow up of 56 patients with the patient international GLIVEC program assistance (GIPAP) J Saba (France) Lessons learned from 20 HPV vaccination pilot programmes in 13 low and middle income countries B Rosen (Canada) Implementation of radical hysterectomy surgery in Western Kenya M Hummeida (Sudan) Neoadjuvant chemotherapy versus primary surgery in advanced staged ovarian cancer B Yonas (Ethiopia) Breast cancer subtypes in Ethiopia: results of 46 breast cancer biopsies 2006 - 2010 from Addis Ababa University Hospital in Ethiopia S Rayne (South Africa) Young and aggressive? A comparative study of tumour characteristics in racial groups of breast cancer patients in Johannesburg M Wishahi (Egypt) Urothelial carcinoma of the urinary bladder mixed with squamous differentiation of squamous cell carcinoma in areas with schistosomiasis in Africa is showing high risk of recurrence and poor TE Madiba (South Africa) Colorectal cancer in KwaZulu-Natal: an established disease with a variable clinicopathological spectrum B Magaji (Malaysia) Descriptive epidemiology, survival and predictors of survival among colorectal cancer patients treated in an Asian teaching hospital 2001 to 2010 H Simonds (South Africa) Breast cancer tumour subtypes in a single institution in South Africa A Company (Spain) The VCCnet education program on cervical cancer prevention: results of an e-learning experience in Africa T Mughal (USA) Chronic myeloid leukemia
18h00 - 20h00	AORTIC GENERAL ASSEMBLY (members only) Hall 2ABFH				

07h00 - 17h30	Registration Registration Foyer				
Meet The Experts	Hall 3		Hall 3		
07h00 - 07h50	PSYCHOSOCIAL IMPACT OF CANCER DIAGNOSIS		STATE OF MEDICAL EDUCATION IN AFRICA <i>Supported by AstraZenca</i>		
CHAIR(S)	Chairs: JC Holland (USA), B Wiife-Addai (Ghana)		Chairs: R Anorlu (Nigeria), L Denny (South Africa), B Rosen (Canada)		
PROGRAMME	<p>Speakers B Wiife-Addai (Ghana) Present psychosocial issues for African women diagnosed with breast cancer, and suggested directions for research and clinical care JC Holland (USA) The universal issues that breast cancer poses for women, across all cultures, and how that contributes to their ability to cope with the disease</p>		<p>Participants R Anorlu (Nigeria) I Adewole (Nigeria) S Morgan (Austria) L Denny (South Africa) B Rosen (Canada) S Rayne (South Africa)</p>		
Keynote	Hall 2ABFH				
08h00 - 08h30	PLACING PATIENTS' HUMANITY AT THE CENTRE OF OUR CARE				
CHAIR(S)	Chairs: L Denny (South Africa), S Gueye (Senegal)				
SPEAKER	Speaker: L Ramondetta (USA)				
08h30 - 09h00	AFRICAN PALLIATIVE CARE AND ITS CONTRIBUTION TO THE WORLD				
CHAIR(S)	Chairs: K Elshamy (Egypt), J Harford (USA)				
SPEAKER	Speaker: F Mwangi-Powell (Kenya)				
09h00 - 09h10	10 minute transition time				
Plenary	Hall 2ABFH		Hall 2C		
09h10 - 10h30	BREAST CANCER <i>Supported by Novartis</i>		HAEMATOLOGY		
CHAIR(S)	Chairs: O Olopade (USA), H Simonds (South Africa)		Chairs: M Gospodarowicz (Canada), NA Othieno-Abinya (Kenya)		
PROGRAMME	<p>Speakers M Abdalla (USA) Breast cancer control in low- and middle-income countries: towards a common vision S Mohammed (Sudan/USA) Breast cancer screening in rural setting: lessons from the Sudan/USA E Panieri (South Africa) Managing high risk patients in low-resource settings V McCormack (France) Breast cancer in Southern Africa: insights from prevalent subtypes and down staging trends O Olopade (USA) H3Africa and I-SPY: Implications for development of precision medicine for Africans</p>		<p>Speakers M Durosinni (Nigeria) Myelodysplastic neoplasms in Africa: challenges in diagnosis and treatment A Kalebi (Kenya) The WHO classification of lymphomas: can Africa really cope? F Abayomi (South Africa) Management of HIV/AIDS-associated non-Hodgkin's lymphomas: separating facts from fiction M Gospodarowicz (Canada) Radiotherapy in non-Hodgkin lymphomas</p>		
10h30 - 11h00	Tea Break / Exhibition / Posters Hall 3				
Workshops	Hall 2ABFH	Hall 2C	Meeting Room 11	Meeting Room 12	
11h00 - 13h00	BREAST CANCER I: FOCUS ON SURGERY <i>Supported by Susan G. Komen</i>	LIVER CANCER	TOBACCO-RELATED CANCERS <i>Supported by ACS</i>	PAIN MANAGEMENT <i>Supported by UICC and GAPRI</i>	
CHAIR(S)	Chairs: O Olopade (USA), H Simonds (South Africa)	Chairs: M Kew (South Africa), S Mbulaitaye (USA)	Chairs: O Ayo-Yusuf (South Africa), J Drope (USA)	Chairs: M O'Brien (USA), J Torode (Switzerland)	
PROGRAMME	<p>Speakers O Olopade (USA) Introduction TP Kingham (USA) Neoadjuvant chemotherapy and breast cancer surgery I Buccimazza (South Africa) Maximising surgical resources in a low-middle income setting H Cubasch (South Africa) Some common preconceptions about African breast cancer addressed in a large cohort from Soweto PS Diop (Senegal) Current surgical challenges in Africa</p>	<p>Speakers M Kew (South Africa) HCC in Africa: etiology and pathogenesis R Walton (UK) Molecular mechanisms in liver cancer AO Abdel-Aziz (Egypt) HCV and HCC in Africa: mechanism, attributable fraction, and opportunities for prevention FM Buonaguro (Italy) HCC pathogenesis: HCV vs HBV molecular pathways M Andersson (South Africa) Hepatocellular carcinoma in persons with HIV infection F Izzo (Italy) HCC local ablation: radiofrequency ablation of malignant liver tumors in 304 patients F Bhajjee (South Africa) Surgical resection of liver cancer in Africa</p>	<p>Speakers I Soerjomataram (France) The burden of cancer related to tobacco smoking: will there be a new epidemic in Africa? P Groenewald (South Africa) Estimating tobacco attributed mortality using death certificates O Ayo-Yusuf (South Africa) Cancer risks of non-cigarette tobacco products: a scientific basis for regulation E Blecher (USA) Forecasting tobacco use in sub-Saharan Africa OA Adebiji (Nigeria) The importance of smoking cessation for cancer patients and how to help them P Mugenyi (Uganda) and EK Fakara (Togo) A roadmap for tobacco control in Africa for the next five years: suggested priority directions for the Centre for Tobacco Control in Africa (CTCA) and African Tobacco Control Alliance (ATCA)</p>	<p>Section 1: A new political landscape: opportunities for real change in access to morphine and care? Speakers Z Ali (Kenya) Commitments in the NCD global monitoring framework and the opportunities to place palliative care on the global agenda V Vanderpuye (Ghana) Final survey result of the international collaborative project to evaluate the availability and accessibility of opioids for the management of cancer pain Section 2: Advancing availability: lessons from national oral morphine production programmes Speakers R Canafra (Uganda) Lessons from Uganda's morphine production programme C Igharo (Nigeria) Lessons from Nigeria's morphine production programme</p>	<p>Speakers E Sesse (USA) Improving endemic Burkitt lymphoma outcomes in Kampala, Uganda: preliminary findings from the BL treatment project MS Durosinni (Nigeria) Improved survival in patients with African Burkitt lymphoma (BL): experience in Ile-Ife, Nigeria I Mutyaba (Uganda) Correlates of childhood cancer presentation in Kyadondo county Uganda M-J Horner (Malawi) A breast cancer record linkage analysis between the cancer registry and pathology database at Kamuzu Central Hospital in Malawi: challenges and lessons learned S Vanderburg (USA) Quality and sustainability in cancer registration: a systematic review of African cancer registries L Van Lonkhuijzen (Netherlands) Cisplatin for the palliative treatment of cervical cancer at Moi Teaching and Referral Hospital, Eldoret, Kenya: a two year experience I Kolawole (Nigeria) Pain control in cancer patients: an audit of analgesic-prescribing by general surgeons in a tertiary health institution in Nigeria L Wiebe (USA) Reliability and acceptability of the Jerrycan pain scale for patients in Hospice Africa Uganda (HAU) J Wanjuki (Kenya) Prevalence and management of cancer pain in ambulatory patients in Kenyatta National Hospital Z Ali (Kenya) Assessing total pain in the terminally ill cancer patients in Kenya public healthcare system J Edge (South Africa) The Breast Course for Nurses: training for nurses working in a primary setting in Northern Africa</p>
13h00 - 14h30	Lunch / Exhibition / Posters Hall 3				

Lunch Sessions	Meeting Room 11	Meeting Room 12	Meeting Room 21DEFG		
13h15 - 14h15	ROCHE SYMPOSIUM <i>Cervical disease and the human papilloma virus</i>	GSK ONCOLOGY SYMPOSIUM <i>Update on the treatment of HER2 metastatic breast cancer: what has been achieved?</i>	GUIDELINES FOR CANCER MANAGEMENT IN AFRICA		
CHAIR(S)		Chair: I Boeddinghaus (South Africa)	Chair: NA Othieno-Abinya (Kenya)		
PROGRAMME	Speakers G Dreyer (South Africa) HPV prevalence and types in women with and without cervical lesions WK Huh (USA) The ATHENA Trial explained	Speakers H Abdelazim Targeting Her-2 in breast cancer: as easy as this! C Jackish Optimising treatment options for HER2+ metastatic breast cancer H Abdelazim Patient case: treating brain metastasis in HER2+ breast cancer	Speaker NA Othieno Abinya (Kenya) Cancer management in Africa: the need for guidelines		
Workshops	Hall 2ABFH	Hall 2C	Meeting Room 11	Meeting Room 12	Meeting Room 21DEFG
14h30 - 17h30	BREAST CANCER II: FOCUS ON ONCOLOGY THERAPY AND ACCESS TO CARE <i>Supported by Susan G. Komen</i>	PROSTATE CANCER	JOINT AORTIC-ASCO SYMPOSIUM: CANCER BIOLOGY <i>Supported by ASCO</i>	ONCOLOGY NURSING	FREE COMMUNICATION OF ABSTRACTS IV
CHAIR(S)	Chairs: O Olopade (USA), H Simonds (South Africa)	Chairs: P Fernandez (South Africa), M Jalloh (USA), S Mante (Ghana), S Watya (Uganda)	Chairs: R Jain (USA), S Mohammed (Sudan/USA)	Chairs: K Elshamy (Egypt), M Fitch (Canada), A Young (UK)	Chairs: J-M Kabongo-Mpalesha (Democratic Republic of Congo), NA Othieno-Abinya (Kenya)
PROGRAMME	Speakers H Simonds (South Africa) Introduction O Olopade (USA) State of the art chemotherapy/biologicals and online resources H Simonds (South Africa) Hypo fractionated radiotherapy: a resource-sparing option A Elzawawy (Egypt) How the affordability of radiotherapy and essential cancer drugs improves breast cancer control in Africa: an example from Port Said, Egypt O Oluwasola State of the art breast cancer pathology S Malaka (South Africa) Tumour subtyping in a limited resource setting O Ginsburg (Canada) Telemedicine multidisciplinary teams B Anderson (USA) Guidelines for international breast health	Speakers A Hsing (USA) Prostate cancer epidemiology in Africa A Zarrabi (South Africa) Infections and cancer overview S Watya (Uganda) Infections and prostate cancer TBC High risk HPV, and HIV and prostate cancer S Gueye (Senegal) International collaboration in prostate cancer L Niang (Senegal) Place de la prostatectomie radicale dans le traitement du cancer de la prostate en Afrique M Jalloh (USA) Observational treatment of prostate cancer: perspectives in Africa T Rebbeck (USA) Translational research in prostate cancer: moving from bench to bedside	Speakers S Mohammed (Sudan/USA) Introduction R Jain (USA) Normalising tumour microenvironment to treat cancer: bench to bedside to biomarkers S Mohammed (Sudan/USA) Targeted therapy to treat metastatic breast cancer O Olopade (USA) Personalized treatment for individuals of African ancestry: are we there yet? K Odunsi (USA) Cancer vaccine development for ovarian cancer: trials and tribulations M Wanyengera (Uganda) Zinc fingers nucleases for target mutagenesis of high risk HPV's and reverse cervical neoplasia	Speakers K Elshamy (Egypt) Communication with patients and their carers: how to communicate bad news, engaging in person centred conversations DM Kinyanjui (Kenya) Issues of early detection and strategies for increasing early detection D McLeod (Canada) Family centred care in oncology and palliative settings M Fitch (Canada) Psychological care: distress screening and monitoring patient distress, cancer nurses' responses to patient distress A Young (UK) Anti-cancer therapies in resource-restricted settings: management of toxicity, focus on advanced disease B Fitzgerald (Canada) Symptom management: assessment and management / intervention for the most common symptoms: the role and responsibility of nursing K Elshamy (Egypt) and M Fitch (Canada) Patient safety. A focus on errors and near miss reporting, monitoring and reporting of issues: managing challenges	Speakers NM Diagne (Senegal) Le cancer du sein à l'hôpital principal de dakar etude descriptive a propos de 35 cas TE Madiba (South Africa) Anal carcinoma in the KwaZulu-Natal province of South Africa: introducing the KZN Anal Cancer Database BO Ogunnorin (Nigeria) Assessment of chemoradiation therapy for soft tissue sarcomas D Ahmadou (Senegal) Les cancers du colon dans les hôpitaux de Dakar: a propos de 194 cas C Natta (South Africa) Lung cancer risk attributable to occupation in a case control study in black South Africans, 2001 - 2008 T Akingbola (Nigeria) Time to mortality in a Nigerian breast cohort S Schofield (France) Hematologic malignancies in South Africa: data from the National Cancer Registry of South Africa 2000 - 2005 D Sighobla (USA) Ethnic and geographic variations in the pattern of breast and corpus uteri cancers across USA: evidence from 15 states and the District of Columbia J Bohlius (Switzerland) Cancer in HIV-infected children: record linkage study in South Africa D Huo (USA) Genome-wide association studies of breast cancer in women of African ancestry identifies novel susceptibility variants OM Munishi (Tanzania) Esophageal cancer in northern Tanzania: geographical distribution and case characteristics T Maphanga (South Africa) The changing face of black cancer patients at Charlotte Maxeke Johannesburg Academic Hospital: 2001 - 2008 K Adeniji (Nigeria) Update on the pathological appraisal of the carcinoma of the female breast in Ilorin, Nigeria A Lawan (Nigeria) Histopathological pattern of liver biopsies in the University College Hospital, Ibadan, Nigeria (2000 - 2010) L Brinton (USA) Multidisciplinary case-control study of breast cancer in Accra and Kumasi, Ghana: opportunities and challenges C Lorenzoni (Mozambique) Cancer in the city of Maputo 1991 - 2010 A Hurribene (South Africa) Business principles and practices: do they have a place in a health campaign powered by a public benefit organisation-non-profit company? V Vanderpuye (Ghana) A pilot survey of breast cancer management in Africa
19h30 - 00h00	GALA DINNER Halls 4 + 5AB				

07h00 - 14h00	Registration Registration Foyer				
Meet The Experts	Hall 3		Hall 3		
07h00 - 07h50	PUBLIC-PRIVATE PARTNERSHIPS <i>Supported by PRRR</i>		VACCINE IMPLEMENTATION		
CHAIR(S)	Chairs: L Denny (South Africa), D Oluwole (USA)		Chairs: N Broutet (Switzerland), R Sankaranarayanan (France)		
PROGRAMME	<p>Participants G Parham (Zambia) B Wiafe-Addai (Ghana) K Brady (USA) A Barry (Morocco)</p>		<p>Speakers N Broutet (Switzerland) Experiences from low-income countries on national HPV vaccine implementation <i>(French, with English/French discussion)</i></p> <p>R Sankaranarayanan (France) What do we know about the role of less than 3-doses of HPV vaccination in cervical cancer prevention <i>(English, with English/ French discussion)</i></p>		
Keynote	Hall 2ABFH				
08h00 - 08h30	COMBATING CERVICAL AND BREAST CANCER IN AFRICA				
CHAIR(S)	Chairs: M Abdalla (USA), J Harford (USA)				
SPEAKER	Speaker: D Oluwole (USA)				
08h30 - 09h00	VIRUSES AND CANCER				
CHAIR(S)	Chairs: G Dreyer (South Africa), V Leaner (South Africa)				
SPEAKER	Speaker: R Newton (UK)				
09h00 - 09h10	10 minute transition time				
Plenary	Hall 2ABFH		Hall 2C		
09h10 - 10h30	ENVIRONMENT AND OCCUPATION IN CANCER <i>Supported by CANSA/IARC</i>		GYNAECOLOGICAL CANCERS <i>Supported by IGCS/WHO</i>		
CHAIR(S)	Chairs: C Albrecht (South Africa), J Schüz (France)		Chairs: N Broutet (Switzerland), G Dreyer (South Africa), R Sankaranarayanan (France)		
PROGRAMME	<p>Speakers J Schüz (France) Role of environmental pollutants, occupational exposures and radiation in the epidemiology of cancer and their relevance for Africa F Winde (South Africa) Mapping human exposure to mining-related pollution of uranium and other toxic metals in Goldfields of the Witwatersrand C Albrecht (South Africa) Preliminary quantitation of potential carcinogens uranium and lead in soil, hair and teeth samples of people living close to gold mine slimes dams West and South of Johannesburg V Sewram (South Africa) Possible role of environmental factors in the high occurrence of oesophageal cancer in South Africa</p>		<p>Speakers R Sankaranarayanan (France) Burden of disease of gynaecological cancers in Africa G Dreyer (South Africa) Surgical treatment for gynaecologic cancer with limited or no radiation services ZM Chirenje (Zimbabwe) Advanced gynaecological cancer in Africa: best support and care I Adewole (Nigeria) What does the gynaecological oncologist need from the pathologist?</p>		
10h30 - 11h00	Tea Break / Exhibition / Posters Hall 3				
Workshops	Hall 2ABFH	Hall 2C	Meeting Room 11	Meeting Room 12	Meeting Room 21DEFG
11h00 - 13h00	PAEDIATRIC ONCOLOGY	AIDS-RELATED MALIGNANCIES <i>Supported by NGI (USA)</i>	COLORECTAL CANCER <i>Supported by ACS/UKZN</i>	AORTIC'S CONTINENTAL CANCER CONTROL PLAN	FREE COMMUNICATION OF ABSTRACTS V
CHAIR(S)	Chairs: N Graf (Germany), DC Stefan (South Africa)	Chairs: K Bhatia (USA), J Harford (USA), M Nokta (USA)	Chairs: O Brawley (USA), TE Madiba (South Africa), P Ramdial (South Africa), R Ramesar (South Africa)	Chair: I Adewole (Nigeria)	Chairs: JF Holland (USA), B Sylia (France)
PROGRAMME	<p>Speakers DC Stefan (South Africa) Introduction C Moreira (Senegal) Prise en charge des enfants atteints d'un cancer en Afrique expérience du groupe Franco-Africain d'oncologie pédiatrique G Vujanic (UK) The role of the pathologist in the diagnosis of nephroblastoma N Graf (Germany) Advances in the management of nephroblastoma DC Stefan (South Africa) Discussion: How to improve the survival of nephroblastoma in Africa?</p>	<p>Speakers R Yarchoon (USA) Current and future challenges in HIV malignancy research in Africa J Orem (Uganda) HIV non-Hodgkin's lymphoma (H-NHL) in sub-Saharan Africa (SSA): need for better understanding S Krown (USA) HIV associated Kaposi Sarcoma in Africa: challenges and opportunities S Mbulaitwe (USA) Cancer in persons with HIV infection: rationale and feasibility of using HIV/AIDS cancer match study design to obtain timely scientific and public health data in low-resource settings J Jacobson (USA) US-Africa partnerships to build capacity for research in HIV and cancer: example of Columbia University and South Africa partnership</p>	<p>Speakers TE Madiba (South Africa) Colorectal cancer: challenges for Africa R Ramesar (South Africa) Genetics and colorectal cancer: improving diagnostics O Brawley (USA) Health promotion and primary prevention as it relates to colorectal cancer A Lajyemo (USA) Colorectal cancer disparities and barriers to screening D Irabor (Nigeria) Challenge in the management of colorectal cancer in Nigeria, West Africa A Boutall (South Africa) Surgical approach to colorectal cancer in Africa</p>	<p>Speakers L Denny (South Africa) Introduction: cancer in Africa for Africa J-M Dangou (Senegal) Role of cancer plan in Africa F Odedina (USA) Review of publication: roadmap for cancer control in Africa I Adewole (Nigeria) Formal launch</p>	<p>Speakers O Hasahya (Sweden) Beliefs, attitudes, perceptions and health seeking behaviours towards cervical cancer: a community-based study among women in Uganda following HPV-vaccination P Akpan-Idiok (Nigeria) Caregivers' perceptions of burden of caregiving to cancer patients attending University of Calabar Teaching Hospital, Calabar, Nigeria C Allegrì (Madagascar) Premier évaluation en cour de projet de dépistage par HPV test sure une population non dépisté à Madagascar P Nyongesa (Kenya) Development of innovative sub-speciality training in gynecologic oncology for low-income countries</p>

				FREE COMMUNICATION OF ABSTRACTS V, CONTINUED
				<p>E Orang'o (Kenya) A multifaceted intervention to reduce loss to follow up in a cervical cancer screening programme</p> <p>D Watson-Jones (Tanzania) Reaching the unreachable: can HPV vaccination for cervical cancer prevention be delivered to hard-to-reach populations in Kenya?</p> <p>D Ahmadou (Senegal) Cancer du sein associé à la grossesse</p> <p>C Dzamalala (Malawi) Ecological analysis of environmental risk factors and esophageal cancer incidence rates in Malawi</p> <p>D Fosu-Amoah (South Africa) An audit of operable early stage cancer of the cervix at Pretoria Academic Hospital Complex</p> <p>C Ogo (Nigeria) A clinico-pathological study of prostate cancer in Abeokuta, South Western Nigeria: a five year study</p> <p>J Nsonde Malanda (Congo) Problèmes de prise en charges des cancers digestifs primitifs au chu de Brazzaville</p>
13h00 - 13h15	15 minute transition time			
Plenary	Hall 2ABFH			
13h15 - 14h00	<p>CLOSING SESSION <i>Prize-giving and introduction of new AORTIC Council</i></p>			

POSTER SCHEDULE

THURSDAY, 21 NOVEMBER

NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
014	Adejimi	Adebola	Nigeria	MISCONCEPTION AND MYTHS ABOUT CANCERS AMONG ADULTS IN A RURAL COMMUNITY OF OSUN STATE, NIGERIA
015	Adejoh	Samuel	Nigeria	FACTORS ASSOCIATED WITH CERVICAL CANCER SCREENING AMONG WOMEN IN ABULE-IJESHA, LAGOS, NIGERIA
020	Agbo	Stephen	Nigeria	CLINICAL PRESENTATION OF BREAST CANCER IN SOKOTO, NORTH-WESTERN NIGERIA
039	Asirwa	Fredrick	Kenya	ESTABLISHING AND IMPLEMENTING AN ELECTRONIC ONCOLOGY POINT-OF-CARE (POC) RECORD SYSTEM FOR CANCER CARE AND CANCER SCREENING SERVICES IN WESTERN KENYA
047	Benneh- Akwasi Kuma	Amma	Ghana	UNUSUAL PRESENTATIONS OF CHRONIC MYELOID LEUKAEMIA
072	Faustin	Ntirenganya	Rwanda	INTENSIFYING AWARENESS ON EARLY DETECTION OF BREAST MASSES, A SHORT-TERM STRATEGY TO DECREASE BREAST CANCER CASE: FATALITY RATES IN DEVELOPING COUNTRIES
081	Isanga	Anthony	Uganda	THE DILEMMA OF PATIENTS WITH CANCER AND THEIR TRADITIONAL HEALERS: AN APPROACH TO MANAGING CERVICAL CANCER AMONG RURAL WOMEN IN UGANDA
091	Konaté	Ibrahima	Senegal	ETUDE DESCRIPTIVE ET PROBLEMATIQUE DE PRISE EN CHARGE DES CANCERS DU TUBE DIGESTIF: A PROPOS DE 205 CAS COLLIGES AU SERVICE DE CHIRURGIE GENERALE DU CHU LE DANTEC (DAKAR)
108	Michael	Lukoma	Uganda	THE EXPERIENCES OF MULTI-DISCIPLINARY TEAMS IN A NATIONAL REFERRAL HOSPITAL: A CASE OF MULAGO HOSPITAL
114	Mudini	Washington	Zimbabwe	PROSTATE CANCER: THE SURGICAL PATHOLOGY ZIMBABWEAN SITUATION
125	Nabirye	Elizabeth	Uganda	INFORMATION NEEDS AND SOURCES AMONG CANCER PATIENTS: THE PERSPECTIVE OF CANCER PATIENTS IN MULAGO NATIONAL REFERRAL HOSPITAL
134	Nwabukwu	Ify Anne	United States	AFRICAN WOMEN'S CANCER AWARENESS ASSOCIATION: A MODEL TO BREAK THE SILENCE BARRIER
138	O'Brien	Megan	United States	INNOVATIONS IN CLINICAL TRAINING: USING E-LEARNING TO RAPIDLY DIFFUSE NEW SKILLS AND INFORMATION IN CANCER CARE AFRICA
141	Ogungbade	Idiat	Nigeria	LEVEL OF AWARENESS OF MAMMOGRAPHY AMONG WOMEN ATTENDING OUTPATIENT CLINICS IN A TEACHING HOSPITAL IN IBADAN, SOUTH-WEST NIGERIA
144	Ojukwu	John C	Nigeria	SENTINEL LYMPH NODE BIOPSY IN A DEVELOPING COUNTRY: A 5 YEAR REVIEW AND FOLLOW UP
146	Ola	Tolulope Monisola	Nigeria	IMPACT OF INFOCANCER PROGRAMME ON EARLY DETECTION AND TREATMENT BREAST AND CERVICAL CANCER IN AN UNDERSERVED AREA
147	Ola	Tolulope Monisola	Nigeria	KNOWLEDGE, ATTITUDE AND PRACTICE OF BREAST SELF EXAMINATION AMONG RURAL WOMEN IN EKITI STATE, NIGERIA
154	Opoku	Paul	Ghana	AFRICAN CANCER ORGANISATION (ACO): WHO WE ARE, WHAT WE DO AND HOW WE DO IT
160	Phung Thi	Huong	Vietnam	HAPPINESS OF BREAST CANCER SURVIVORS IN HANOI-VIETNAM
171	Sheppard	Vanessa B	United States	ENDORSEMENT OF CANCER SCREENING AND PREVENTION IN AFRICAN ETHNIC WOMEN
178	Strydom	Erin	South Africa	INVESTIGATING KPNB1: SMALL MOLECULE INTERACTIONS FOR CANCER THERAPY

THURSDAY, 21 NOVEMBER

FRIDAY, 22 NOVEMBER

NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
011	Abnet	Christian	United States	A STUDY OF POLYCYCLIC AROMATIC HYDROCARBON EXPOSURE IN BOMET, KENYA, AN AREA WITH HIGH RATES OF ESOPHAGEAL SQUAMOUS CELL CARCINOMA
019	Adio- Moses	Ruth Ochanya	Nigeria	FEMALE ADOLESCENTS' KNOWLEDGE OF CERVICAL CANCER SCREENING AND IMMUNIZATION: SOME FACTORS OF RELEVANCE TO BRIDGING SCIENCE AND HUMANITY
022	Ahmadou	Dem	Senegal	ASSOCIATION CANCER DU COL UTERIN ET GROSSESSE: A PROPOS DE 8 CAS
029	Ali	Zipporah	Kenya	SPIRITUAL SUPPORT: ITS ROLE IN THE CARE OF TERMINALLY ILL CANCER PATIENTS IN KENYA
006	Alleyne-Mike	Kellie	South Africa	RETROSPECTIVE REVIEW OF PATIENTS WITH STAGE 1B2 CERVICAL CANCER TREATED WITH RADICAL RADIATION VERSUS RADICAL SURGERY AS A PRIMARY MODALITY
032	Alves	César	Angola	ANGOLA'S CANCER BURDEN AND ITS FIRST RADIOTHERAPY SERVICE AT CLINICA GIRASSOL
033	Alves	César	Angola	FIRST NUCLEAR MEDICINE DEPARTMENT IN ANGOLA

FRIDAY, 22 NOVEMBER

POSTER SCHEDULE

NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
046	Behera	Manoj	India	TREATMENT WITH LAPATINIB IN SYSTEMIC ADVANCED CARCINOMA BREAST-A TERTIARY CANCER CENTER EXPERIENCE
048	Berthe Sabine	Esson Mapoko	Cameroon	DEVENIR DES PATIENTES ATTEINTES DE CARCINOME MAMMAIRE INVASIF APRES RADIOTHERAPIE ADJUVANTE AU CAMEROUN
001	Botelho	Monica C	Portugal	ESTROGEN-DNA ADDUCTS MEDIATED PATHWAY AS A CAUSE OF BLADDER CANCER ASSOCIATED WITH SCHISTOSOMIASIS INFECTION
051	Brady	Bernadette	Uganda	SIGNS OF APPROACHING DEATH: THE FAMILY'S EXPERIENCE
052	Buecker	Rebecca	Germany	CLINICAL EXPERIENCE USING INTRA-OPERATIVE RADIOTHERAPY AS A BOOST WITH LOW-ENERGY X-RAYS USING THE INTRABEAM-SYSTEM DURING BREAST-CONSERVING SURGERY
053	Busolo	David	Canada	CANCER PREVENTION IN AFRICA
055	Chidothe	Irene	Malawi	THE ROLE OF NEOADJUVANT CHEMOTHERAPY IN AFRICAN-ALBINOS WITH LOCALLY ADVANCED SQUAMOUS CELL CARCINOMA AT A BLANTYRE HOSPITAL
057	Coulibaly	Bourama	Mali	LE CANCER À BAMAKO DE 2006 A 2010: DONNÉES DU REGISTRE DES CANCERS DU MALI
058	Davids	Lester	South Africa	PHOTODYNAMIC THERAPY AS A NOVEL THERAPY FOR THE ADJUNCTIVE TREATMENT OF METASTATIC MELANOMA: AN IN VITRO STUDY
060	Dunn	Cherise	South Africa	THE ROLE OF THE RENIN ANGIOTENSIN SYSTEM IN CANCER
065	Elamin	Amany	Sudan	PEROXIREDOXIN V: A CANDIDATE BREAST TUMOR MARKER OF POPULATION SPECIFICITY
067	Enow Orock	George	Cameroon	POPULATION CANCER REGISTRATION IN LOW RESOURCE SETTINGS. THE YAOUNDE CANCER REGISTRY 10 YEARS AFTER
069	Falode	Deborah	Nigeria	CELL PROLIFERATION AND EPITHELIA PROFILE IN PROSTATE CANCER AND BENIGN PROSTATIC HYPERPLASIA
007	Grover	Surbhi	United States	CERVICAL BRACHYTHERAPY EXCHANGE: STEPS TOWARDS ONCOLOGY CAPACITY BUILDING IN BOTSWANA
082	Itsura	Peter	Kenya	NEOADJUVANT CISPLATIN FOR CERVICAL CANCER AT MOI TEACHING AND REFERRAL HOSPITAL, ELDORET, KENYA: TWO YEAR EXPERIENCE
084	Kalagbor	Ihesinachi	Nigeria	INVESTIGATION OF THE PRESENCE OF SOME HEAVY METALS IN FOUR EDIBLE VEGETABLE FROM A COTTAGE FARM IN PORT HARCOURT, RIVERS STATE, NIGERIA
086	Kielkowski	Danuta	South Africa	CHALLENGES AND OPPORTUNITIES IN THE ESTABLISHMENT OF AN URBAN POPULATION BASED CANCER REGISTRY IN EKURHULENI DISTRICT
088	Kohnke	Jenna	United States	USING THE MORPHINE FRAMEWORK TO IMPROVE ACCESS TO ESSENTIAL PAIN MEDICINES
089	Kolawole	Israel	Nigeria	PALLIATIVE CARE IN CANCER: EXPERIENCE FROM A TERTIARY HEALTH INSTITUTION IN NIGERIA
090	Kolawole	Israel	Nigeria	HERBAL MEDICINE USE BY CANCER PATIENTS IN A TERTIARY HEALTH INSTITUTION IN NIGERIA
094	Lara Santos	Lucio	Portugal	GLYCOSYLATION-RELATED CHANGES IN PRE-MALIGNANT LESIONS AND MALIGNANT BLADDER CARCINOMAS ASSOCIATED WITH SCHISTOSOMA HAEMATOBILUM INFECTION
095	Lara Santos	Lucio	Portugal	PATIENT-DERIVED INVASIVE BLADDER CANCER XENOGRAFTS IN NUDE MICE
096	Lara Santos	Lucio	Portugal	BREAST CANCER IN ANGOLA: A PRELIMINARY STUDY
100	Mabeta	Peace	South Africa	PF 228 EXHIBITS ANTICANCER AND ANTIANGIOGENIC EFFECTS
109	Miguel	Fernando	Angola	RADIOTHERAPY DEPARTMENT OF THE NATIONAL ONCOLOGY CENTER OF ANGOLA: A NEW BEGINNING
104	Maseela	Tsélliso	Germany	HURDLES OF GYNAECOLOGICAL ONCOLOGY IN SOUTHERN AFRICA
003	Mavri-Damelin	Demetra	South Africa	THE EFFECTS OF METFORMIN ON OESOPHAGEAL SQUAMOUS CELL CARCINOMA CELL PROLIFERATION AND COMBINATION CHEMOTHERAPY
110	Mindiera	Christopher	Malawi	EXPLORING THE EXPERIENCES OF PATIENTS LIVING WITH CERVICAL CANCER AT NDIMOYO PALLIATIVE CARE, SALIMA, MALAWI
112	Mossanda	Kensese	South Africa	HEPATOCELLULAR CARCINOMA: INTERACTION BETWEEN MULTIPLE HEPATITIS VIRAL INFECTIONS AND MYCOTOXINS INGESTION IMPLICATING OXIDATIVE STRESS
115	Muhimbura	Emmanuel	Uganda	EVALUATION OF AGREEMENT BETWEEN CLINICAL DIAGNOSIS OF OCULAR SURFACE SQUAMOUS NEOPLASIA (OSSN) AND HISTOPATHOLOGY RESULTS AS SEEN AT RUHARO EYE CENTER, MBARARA, UGANDA
116	Mumbengewi	Davis	Namibia	INVESTIGATION OF THE ANTINEOPLASTIC PROPERTIES OF NAMIBIAN INDIGENOUS PLANTS: COLOPHOSPERMUM MOPANE AND SCHINZIOPHYTON RAUNTANENII
118	Mutala Shem	Nseizere	Uganda	CANCER PATIENTS' EXPERIENCES OF CARE AND SUPPORT RECEIVED FROM HOSPICE JINJA IN LUUKA DISTRICT, UGANDA
119	Mutocheluh	Mohamed	Ghana	THE EFFECT OF AFLATOXINS ON HUMAN CANCER PATHWAYS
122	Mwapagha	Lamech	South Africa	THE ROLE OF HPV E6 PROTEIN ON CELLULAR TRANSFORMATION
124	Mwebesa	Eddie	Uganda	THE PALLIATIVE CARE NEEDS AND PROFILES OF ADULT BREAST CANCER PATIENTS IN MULAGO HOSPITAL, UGANDA
126	Naidoo	Horacia	South Africa	A PRELIMINARY INVESTIGATION OF CARDIOTOXICITY IN THE TREATMENT OF BREAST CANCER IN AN AFRICAN SETTING

FRIDAY, 22 NOVEMBER

POSTER SCHEDULE

NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
128	Nakami	Sylvia	Uganda	STRENGTHENING AND INTEGRATING PALLIATIVE CARE IN HEALTH SYSTEMS: A CASE FOR SUSTAINABLE PALLIATIVE CARE SERVICES PROVISION IN UGANDA
129	Ndlovu	Ntokozo	Zimbabwe	RADIOTHERAPY EDUCATION IN AFRICA: AN IAEA/AFRA SURVEY
137	O'Brien	Megan	United States	CHECK YOUR PAIN AT THE DOOR! THE PAIN FREE HOSPITAL INITIATIVE
145	Okolo	Clement	Nigeria	PATTERN OF SKIN TUMORS IN SOKOTO NORTHWESTERN NIGERIA
150	Omotoso	Ayodele	Nigeria	GYNAECOLOGICAL MALIGNANCY IN CALABAR
151	Onibokun	Adenike	Nigeria	TELE-COUNSELLING IN PSYCHO-ONCOLOGY AND PALLIATIVE CARE SERVICES IN IBADAN, SOUTHWEST NIGERIA
152	Opoku	Constance	Ghana	AN ASSESSMENT OF ACCEPTABILITY OF HOSPITAL BASED CERVICAL CANCER SCREENING WITH AN INTEGRATED APPROACH IN THE NORTHERN REGION OF GHANA
153	Opoku	Paul	Ghana	ACO ESTABLISHING CANCER INFORMATION SERVICE CENTER IN ACCRA, GHANA
162	Raja	Priya	United States	THE ACCESS CONUNDRUM: CERVICAL CANCER SCREENING FOR LOW-INCOME WOMEN IN SOUTH AFRICA
165	Rawlinson	Fiona	United Kingdom	THE DEVELOPMENT OF PALLIATIVE CARE E-LEARNING MODULES FOR CANCER IN SUB-SAHARAN AFRICA
168	Sarah	Nandaula	Uganda	A REVIEW OF TREATMENT OUTCOMES OF KAPOSI'S SARCOMA IN CHILDREN ATTENDING HOSPICE AFRICA UGANDA AND ITS IMPLICATIONS FOR THE PROVISION OF PALLIATIVE CARE
173	Sithole	Nomfuneko	South Africa	ESTIMATING CANCER PROFILE IN AN URBAN POPULATION OF THE EASTERN CAPE PROVINCE USING A HOSPITAL-BASED CANCER REGISTRY
174	Siyo	Vuyolwethu	South Africa	ANTI-CANCER ACTIVITY OF AJOENE RELATED ANALOGUES INVOLVES THE INDUCTION OF ENDOPLASMIC RETICULUM STRESS
175	Smith	Muneerah	South Africa	AN INVESTIGATION INTO THE ANTI-CANCER MECHANISM OF ORGANOSULFUR COMPOUNDS
176	Somdyala	Nontuthuzelo	South Africa	CHECKING CONSISTENCY AND LEGITIMACY OF CANCER DATA COLLECTED BY FOUR HOSPITALS
004	Tapela	Neo	Rwanda	IMPLEMENTATION AND PRELIMINARY FINDINGS OF A COMPREHENSIVE CANCER CENTER OF EXCELLENCE IN RURAL RWANDA
180	Tesfamariam	Asmerom	Eritrea	MOLECULAR BIOLOGY OF BREAST CANCER IN THE HORN OF AFRICA. CASE SERIES: A PILOT STUDY OF BREAST CANCER FROM ERITREA
187	Van Loon	Katherine	United States	BUILDING A CANCER REGISTRY IN DAR ES SALAAM, TANZANIA: RESULTS OF A 3-MONTH PILOT STUDY TO EVALUATE COMPLETENESS OF PATHOLOGY DATA
188	Vanderburg	Sky	United States	REBUILDING A CANCER REGISTRY IN NORTHERN TANZANIA: A STEPWISE REVIEW OF 2010-2013
196	Williams	Karen Patricia	United States	KIN KEEPER: A REAL WORLD APPROACH TO ADDRESSING BREAST & CERVICAL CANCER DISPARITIES
200	Zirimanya	Ludoviko	Uganda	MANAGING PAIN IN PANCREATIC CANCER: SHARING EXPERIENCES
005	Zullig	Leah	United States	A QUALITATIVE ASSESSMENT OF SUSTAINABILITY OF A CANCER REGISTRY AT A TERTIARY MEDICAL CENTER IN KILIMANJARO, TANZANIA
SATURDAY, 23 NOVEMBER 2013				
NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
016	Adeniji	Kayode	Nigeria	SURVIVORSHIP STUDY OF HISTOLOGICALLY CONFIRMED BREAST CANCER: EXPERIENCE IN A NIGERIAN TEACHING HOSPITAL
018	Adeniji Sofoluwe	Adenike	Nigeria	PREGNANCY RELATED BREAST DISEASES IN A DEVELOPING AFRICAN COUNTRY: INITIAL FINDINGS WITH SONOGRAPHIC EVALUATION
025	Akinjemiju	Tomi	United States	ADHERENCE TO CANCER PREVENTION GUIDELINES IN 15 AFRICAN COUNTRIES
026	Alabi	Adewumi	Nigeria	AWARENESS OF SELF BREAST EXAMINATION AMONG FEMALE NATIONAL YOUTH CORPS MEMBERS IN LAGOS STATE, NIGERIA
027	Alatise	Olusegun	Nigeria	IMPACT OF ROUTINE COLONOSCOPY ON INCIDENCE OF COLORECTAL CANCER IN A SEMI-URBAN NIGERIAN HOSPITAL
028	Alatise	Olusegun	Nigeria	DISPARITY IN SURVIVAL OUTCOME OF COLORECTAL CANCER IN TWO COUNTRIES: NEED FOR ACTION
035	Andersson	Monique	South Africa	RISK FACTORS AND SURVIVAL IN HIV INFECTED AND HIV UNINFECTED PATIENTS WITH HEPATOCELLULAR CARCINOMA
037	Anley	Mesfin	Ethiopia	REDUCING ONCOLOGY PATIENT TREATMENT DELAYS AND IMPROVING SERVICE DELIVERY AT TIKUR ANBESSA SPECIALIZED HOSPITAL (TASH), ADDIS ABABA, ETHIOPIA
041	Asuzu	Chioma	Nigeria	SOCIO-EPIDEMIOLOGICAL STUDY OF CANCER PATIENTS AND THEIR TRADITIONAL AND ALTERNATIVE HEALERS AT THE UNIVERSITY OF NIGERIA TEACHING HOSPITAL, ENUGU, IN EASTERN NIGERIA

FRIDAY, 22 NOVEMBER

SATURDAY, 23 NOVEMBER

POSTER SCHEDULE

NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
042	Ayandipo	Omobolaji	Nigeria	ABDOMINO-PERINEAL RESECTION FOR LOW RECTAL AND ANAL MALIGNANCIES IN IBADAN: A CLINICAL AUDIT
043	Ayoujil	Abdelhafid	Morocco	BREAST-CONSERVING SURGERY FOR BREAST CANCER IN MOROCCO: PATIENT PROFILE AND OUTCOME
044	Babb	Chantal	South Africa	EFFECTS OF SMOKELESS TOBACCO (SNUFF) ON CANCER IN BLACK SOUTH AFRICANS
045	Begoihn	Matthias	Germany	OVERALL SURVIVAL AND ITS PREDICTORS OF 1059 PATIENTS WITH CERVICAL CANCER AT TIKUR ANBESSA HOSPITAL ADDIS ABABA, ETHIOPIA
050	Bolarinwa	Rahman A	Nigeria	CHARACTERISTICS OF PATIENTS AND RISK FACTORS FOR DEATH IN A SERIES OF NIGERIANS ON IMATINIB FOR CHRONIC MYELOID LEUKAEMIA
054	Charwudzi	Alice	Ghana	DETECTION OF BCR-ABL TRANSLOCATION FROM ARCHIVAL METHANOL FIXED BONE MARROW SLIDES USING FLUORESCENT IN SITU HYBRIDIZATION
056	Chokunonga	Eric	Zimbabwe	TRENDS IN THE INCIDENCE OF CANCER IN THE BLACK POPULATION OF HARARE, ZIMBABWE 1991-2010
059	Diagne	Ndeye Marième	Senegal	LES CANCERS COLORECTAUX: ETUDE DESCRIPTIVE DE 122 CAS À L'HOPITAL PRINCIPAL DE DAKAR
066	Elkateb	Nagwa	Egypt	THE IMPACT OF FATIGUE AND SYMPTOMS DISTRESS ON QUALITY OF LIFE AND SAFETY OF ADULT CANCER PATIENT
068	Faduyile	Francis	Nigeria	PATTERN OF CERVICAL BIOPSY IN LAGOS STATE UNIVERSITY TEACHING HOSPITAL: A THREE YEAR REVIEW
071	Falode	Deborah	Nigeria	AN ASSESSMENT OF RADON AS AN ENVIRONMENTAL CARCINOGEN IN A UNIVERSITY CAMPUS OF NIGERIA: USING OBAFEMI AWOLOWO UNIVERSITY CAMPUS AS A CASE STUDY
073	Faustin	Ntiringanya	Rwanda	PREVALENCE OF BREAST MASSES AND BARRIERS TO CARE: RESULTS FROM POPULATION BASED SURVEYS IN RWANDA AND SIERRA LEONE
074	Gathere	Samuel	Kenya	NASOPHARYNGEAL CARCINOMA EPIDEMIOLOGY AND RISK FACTORS IN NAIROBI, KENYA
076	Gopal	Satish	Malawi	EARLY EXPERIENCE AFTER DEVELOPING A PATHOLOGY LABORATORY IN MALAWI, WITH EMPHASIS ON CANCER DIAGNOSES
077	Gwede	Clement	United States	RECRUITMENT AND UPTAKE OF COLORECTAL CANCER SCREENING IN A COMMUNITY-BASED STUDY AMONG ADULTS OF AFRICAN ANCESTRY IN THE UNITED STATES
078	Hordofa	Arare	Ethiopia	DEVELOPMENT OF A PAIN SCALE FOR VERY YOUNG CHILDREN WITH CANCER IN ETHIOPIA
079	Hummeida	Moawia	Sudan	SURVEILLANCE OF ENDOMETRIAL HYPERPLASIA WITH TRANSVAGINAL ULTRASOUND AMONG SUDANESE BREAST CANCER WOMEN ON TAMOXIFEN THERAPY
083	Jean Félix	Peko	Republic of Congo	LES CANCERS DE VESSIE: ASPECTS ÉPIDÉMIOLOGIQUES ET HISTOPRONOSTIQUES À BRAZZAVILLE
085	Kalebi	Ahmed	Kenya	LABORATORY DIAGNOSTIC REVIEW OF CHRONIC MYELOPROLIFERATIVE NEOPLASMS AT A PATHOLOGY PRACTICE IN KENYA
092	Laiyerno	Adeyinka	United States	THE PREVALENCE OF COLORECTAL NEOPLASIA AMONG OLD VERSUS NEW AFRICANS IN DIASPORA
002	Larsen-Reindorf	Rita	Ghana	A SIX-YEAR REVIEW OF HEAD AND NECK CANCERS AT THE KOMFO ANOKYE TEACHING HOSPITAL, KUMASI, GHANA
099	Lines	Jennifer	South Africa	SPLenic ANGIOSARCOMA WITH BONE MARROW METASTASES: A CASE REPORT AND LITERATURE REVIEW
101	Manraj	Shyam	Mauritius	TRENDS IN ENDOMETRIAL CANCER IN THE REPUBLIC OF MAURITIUS OVER PAST TWO DECADES
103	Masalu	Nestory	Tanzania	CERVIX AND BREAST CANCER SCREENING IN MWANZA LAKE ZONE (TANZANIA): THE VANDA PROJECT
105	Matejicic	Marco	South Africa	NAT1 AND NAT2 GENETIC POLYMORPHISMS AND INTERACTION WITH ENVIRONMENTAL RISK FACTORS ON SUSCEPTIBILITY TO OESOPHAGEAL SQUAMOUS CELL CARCINOMA IN SOUTH AFRICA
106	Mathewos	Assefa	Ethiopia	ADVANCED BREAST CANCER IN ETHIOPIA: CHARACTERISTICS AND FOLLOW-UP OF 148 PATIENTS WITH STAGE 4 DISEASE
123	Mwebesa	Eddie	Uganda	THE PREVALENCE AND FACTORS ASSOCIATED WITH HYPERCALCAEMIA AMONG BREAST CANCER PATIENTS IN MULAGO HOSPITAL, UGANDA
130	Ndlovu	Ntokozo	Zimbabwe	GLIVEC PATIENT ASSISTANCE PROGRAMME IN ZIMBABWE: EXPERIENCE WITH CHRONIC MYELOID LEUKAEMIA
131	Ndoye	Medina	Senegal	BLADDER TUMOR IN SÉNÉGAL: EPIDEMIOLOGICAL ASPECTS AND MANAGEMENT
132	Nnodu	Obiageli	Nigeria	CAPACITY BUILDING IN ORTHOPAEDIC ONCOLOGY IN SOUTH-WEST NIGERIA
133	Ntaganda	Fabien	Rwanda	HEMATOLOGICAL CANCER IN RWANDA: CASE OF CHRONIC MYELOID LEUKEMIA ONE YEAR FOLLOW-UP AT KING FAISAL HOSPITAL FROM NOVEMBER 2011 TO NOVEMBER 2012
135	Nwogu	Chukwumere	United States	PROMOTING CANCER CONTROL WORKSHOPS IN RESOURCE LIMITED ENVIRONMENTS: EXPERIENCES IN LAGOS, NIGERIA
139	Odedina	Stella	Nigeria	BREAST SCREENING PRACTICES AMONG PREGNANT AND LACTATING WOMEN IN SOUTH WESTERN NIGERIA
140	Odigie	Vincent	Nigeria	BREAST CANCER IN PREGNANCY AND LACTATION IN NORTHERN NIGERIA: PSYCHOSOCIAL ATTITUDE AND OUTCOME
142	Ohaeri	Beatrice	Nigeria	IMPACT OF PSYCHO-SOCIAL NURSING INTERVENTIONS ON QUALITY OF LIFE OF BREAST CANCER CLINIC ATTENDEES IN A NIGERIAN TEACHING HOSPITAL

SATURDAY, 23 NOVEMBER

POSTER SCHEDULE

NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
143	Oiza Tessa	Ahmadu	Nigeria	METASTATIC BREAST CANCER: PATTERN OF CLINICAL PRESENTATION IN NORTHERN NIGERIA
148	Oladimeji	Kelechi	Nigeria	RISK FACTORS ASSOCIATED WITH BREAST CANCER AMONG WOMEN IN WARRI AND IBADAN, NIGERIA
155	Orang'o	Elkanah Omenge	Kenya	DEVELOPING A COMPREHENSIVE APPROACH TO CERVIX CANCER IN AFRICA: IS IT POSSIBLE?
156	Othieno Abinya	Nicholas Anthony	Kenya	WHAT COULD BE SOME RISK FACTORS FOR BREAST CANCER OCCURRENCE? EXPERIENCE FROM NAIROBI
157	Othieno Abinya	Nicholas Anthony	Kenya	POST CHEMOTHERAPY NEUTROPHIL DYNAMICS AND DEATH COMPLICATING FEBRILE NEUTROPENIA: EXPERIENCE FROM NAIROBI
163	Raphael	Solomon	Nigeria	HISTOLOGICAL PATTERN OF COLORECTAL CARCINOMA IN YOUNG NIGERIANS
164	Raphela	France	South Africa	OCCUPATIONAL EXPOSURE TO ELECTROMAGNETIC FIELDS IN A HEAVY ENGINEERING CO2 WELDING INDUSTRY IN THE MANGAUNG METROPOLITAN MUNICIPALITY
166	Rayne	Sarah	South Africa	BREAST CANCER IN VERY YOUNG WOMEN IN SOUTH AFRICA: TUMOUR BIOLOGY AND PATIENTS CHOICES OVER THE LAST DECADE (2000-2010) FROM A SINGLE MULTI-DISCIPLINARY BREAST UNIT
167	Sahani	Mateus Kambale	Democratic Republic of Congo	COLPOSCOPY IN D.R.CONGO: A CONTRIBUTION TO REDUCE MORTALITY BY CERVICAL CANCER
172	Singh	Elvira	South Africa	10 YEAR CANCER INCIDENCE TRENDS FOR TEENAGERS AND YOUNG ADULTS IN SOUTH AFRICA
177	Soyemi	Sunday	Nigeria	SPECTRUM OF INTRACRANIAL TUMOURS IN A TERTIARY HEALTH CARE FACILITY: OUR FINDINGS
179	Terwase	Joyce Mcivilr	Nigeria	THE IMPACT OF TOBACCO SMOKING ON HEALTH AND CESSATION AMONG A COHORT OF SMOKERS IN IBADAN
181	Traore	Bangaly	Guinea	PRIMARY BURKITT LYMPHOMA IN A HIV INFECTED YOUNG WOMAN
182	Traoré	Cheick Bougadari	Mali	ASPECTS ÉPIDÉMIOLOGIQUES ET IMMUNOHISTOCIMIQUES DES LYMPHOMES AU SERVICE D'ANATOMIE ET DE CYTOLOGIE PATHOLOGIQUES AU CHU DU POINT G A PROPOS DE 20 CAS
183	Usoro	Nathaniel	Nigeria	INTRAVENOUS IRON THERAPY IN BLOOD MANAGEMENT OF BREAST CANCER PATIENTS IN CALABAR, NIGERIA
184	Van Aardt	Matthys Cornelis	South Africa	HUMAN PAPILLOMAVIRUSES OTHER THAN TYPES 16 OR 18 ASSOCIATED WITH MORE CERVICAL CANCER IN HIV-INFECTED SOUTH AFRICAN WOMEN
185	Van Heerden	Judy	South Africa	THE ROLE OF PERCUTANEOUS NEPHROSTOMY IN SOUTH AFRICAN WOMEN WITH ADVANCED CERVICAL CANCER AND OBSTRUCTIVE UROPATHY
186	van Jaarsveld	Albert	South Africa	THE ROLE OF ADJUVANT RADIOTHERAPY FOR BREAST CANCER PATIENTS WITH AXILLARY NODE NEGATIVE OR LIMITED NODAL DISEASE AFTER TOTAL MASTECTOMY, AXILLARY NODAL CLEARANCE AND SYSTEMIC THERAPY
190	Vhritherire	Raymond	Nigeria	MORPHOLOGICAL PATTERN OF LIVER CANCERS IN JOS, NORTH-CENTRAL, NIGERIA
192	Wakuma	Tariku	Ethiopia	BREAST TUMORS IN RURAL ETHIOPIA: PATIENT AND TUMOR CHARACTERISTICS OF 65 CONSECUTIVE CASES IN 2010 INCLUDING 41% MALIGNANCIES
194	Wekesa Wamukaya	Job	Kenya	PSYCHOLOGICAL EFFECTS AMONG CANCER PATIENTS
197	Yeboah	Edward	Ghana	PROSTATE CANCER (PC): TREATMENT OF EARLY DISEASE (T1-T2 NO M0) IN GHANA
198	Young	Annie	United Kingdom	ONCOLOGY NURSE TRAINING PROGRAMME IN GHANA, UGANDA AND MALAWI
199	Zambuko	Blessing	Zimbabwe	ASTROCYTIC NEOPLASMS: THE ZIMBABWEAN SURGICAL PATHOLOGY PERSPECTIVE

SATURDAY, 23 NOVEMBER

SUNDAY, 24 NOVEMBER

NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
013	Abdallah	Fatmah	Kenya	DOES HEALTH INSURANCE IMPROVE SURVIVAL OF WILMS TUMOR
017	Adeniji Sofoluwe	Adenike	Nigeria	SCRIBBLE: BIOINFORMATIC ANALYSIS
021	Agboeze	Joseph	Nigeria	CERVICAL CYTOLOGY PATTERN AMONG HUMAN IMMUNODEFICIENCY VIRUS SEROPOSITIVE WOMEN AT FEDERAL TEACHING HOSPITAL ABAKALIKI, NIGERIA
023	Akakpo	Patrick Kafui	Ghana	A HISTOPATHOLOGICAL CLASSIFICATION OF OVARIAN TUMOURS IN KORLE BU TEACHING HOSPITAL, GHANA
024	Akin-Odanye	Elizaabeth Oluwatoyi	Nigeria	BURDEN OF CAREGIVING AND COPING STYLES AMONG CAREGIVERS OF CANCER PATIENTS
030	Allegri	Claudia	Madagascar	RESULT OF CYTOLOGY SCREENING IN A NEVER SCREENED POPULATION: THE SOUTH MADAGASCAR EXPERIENCE
036	Andriani	Maria Tiziana	Italy	ONCOLOGY FOR AFRICA EXPERIENCE OF THREE CERVICAL AND BREAST CANCER SCREENING CAMPAIGNS IN UGANDA: TOWARDS SUSTAINABILITY?

SUNDAY, 24 NOVEMBER

POSTER SCHEDULE

NO.	LAST NAME	FIRST NAME	COUNTRY	TITLE
038	Asirwa	Fredrick	Kenya	ESTABLISHING A MULTIPLE MYELOMA PROGRAM AT A TERTIARY REFERRAL HOSPITAL IN WESTERN KENYA
040	Asuzu	Chioma	Nigeria	PSYCHOSOCIAL DETERMINANTS OF QUALITY OF LIFE OF CAREGIVERS OF CANCER PATIENTS ATTENDING RADIOTHERAPY CLINIC, UNIVERSITY COLLEGE HOSPITAL, IBADAN
049	Bhatasara	Taurai	Zimbabwe	AN ASSESSMENT OF CANCER KNOWLEDGE AND AWARENESS AMONG THE PUBLIC
009	Chineme	Nkem	United States	IDENTIFYING GENOMIC ARCHITECTURE OF BREAST CANCER IN NIGERIAN WOMEN
061	Der	Edmund Muonir	Ghana	PROGNOSTICATION OF BREAST CANCER IN GHANAIAAN WOMEN: A RETROSPECTIVE HISTOPATHOLOGICAL STUDY
062	Der	Edmund Muonir	Ghana	POSITIVE TUMOUR MARGINS IN WIDE LOCAL EXCISIONS (LUMPECTOMIES) BIOPSIES: A 10-YEAR RETROSPECTIVE STUDY
063	Der	Edmund Muonir	Ghana	TRIPLE NEGATIVE BREAST CANCER (TNBCS) AMONG GHANAIAAN WOMEN SEEN AT KORLE-BU TEACHING HOSPITAL
070	Falode	Deborah	Nigeria	ROLES OF CELL CYCLE REGULATORS IN PROGNOSTIC DETERMINATION OF PROSTATE CANCER AND BENIGN PROSTATIC HYPERPLASIA PROGRESSION
075	Giuliano	Anna	United States	THE EVRI (EFFICACY OF HPV VACCINE TO REDUCE HIV INFECTION) TRIAL DESIGN
080	Ilunga Nikulu	Julien	Democratic Republic of Congo	LE RÉTINOBLASTOME: UNE ÉTUDE RÉTROSPECTIVE DE 27 CAS DE 2008 À 2012 À LUBUMBASHI
087	Kielkowski	Danuta	South Africa	CHILDHOOD CANCERS IN SOUTH AFRICA: ANALYSIS OF SIX YEARS OF PATHOLOGY DATA
093	Langehoven	Lizanne	South Africa	BREAST CANCER AND HUMAN IMMUNODEFICIENCY VIRUS (HIV) STATUS IN CAPE TOWN, SOUTH AFRICA (SA)
097	Lawan	Aliyu	Nigeria	BILATERAL PRIMARY BREAST DIFFUSE LARGE B CELL LYMPHOMA IN A PREGNANT WOMAN WITH HIV/AIDS
010	Leng	Mhoira	Uganda	WHO NEEDS PALLIATIVE CARE? A CATEGORIZATION SYSTEM TO SUPPORT IDENTIFICATION AND REFERRAL
098	Lidenge	Salum	Tanzania	CHEMOTHERAPY IN RETINOBLASTOMA: DISEASE PROFILE AND THERAPY OUTCOME IN TANZANIA, 2008-2010
102	Masalu	Nestory	Tanzania	TELEMEDICINE FOR ONCOLOGY: "SHARE AND MEET FOR AFRICA" PROJECT
107	Mbwilo	Eva	Tanzania	RELIABILITY AND VALIDITY OF HISTOLOGICAL DIAGNOSIS OF RHABDOMYOSARCOMA IN THE DEPARTMENT OF PATHOLOGY, MAKERERE UNIVERSITY COLLEGE OF HEALTH SCIENCES
111	Mokwatle	Gloria	South Africa	COUNSELLING PATIENTS WITH THE DUAL DIAGNOSIS OF CANCER AND HIV
117	Munatswa	Elvis	South Africa	ARE MEN GENERALLY UNABLE TO TAKE CARE OF THEIR HEALTH? CHANGING MASCULINITIES IN THE WAKE OF PROSTATE CANCER
120	Mwachiro	Michael	Kenya	A STUDY OF THE PREVALENCE OF ESOPHAGEAL SQUAMOUS DYSPLASIA AT TENWEK HOSPITAL IN WESTERN KENYA
121	Mwafongo	Albert	Malawi	TREATMENT OUTCOMES OF AIDS-ASSOCIATED KAPOSIS'S SARCOMA UNDER A ROUTINE ANTIRETROVIRAL THERAPY PROGRAM IN LILONGWE, MALAWI: BLEOMYCIN/VINCRISTINE COMPARED TO VINCRISTINE MONOTHERAPY
127	Naidoo	Levashni	South Africa	HIGHLY ACTIVE RETROVIRAL TREATMENT IN HAND: THE CHANGE IN KAPOSIS'S SARCOMA PRESENTATION IN KWAZULU-NATAL, SOUTH AFRICA
136	Obajimi	Millicent	Nigeria	ULTRASOUND GUIDED CORE BIOPSY OF BREAST LESIONS IN IBADAN: OUR INITIAL EXPERIENCE
149	Oluwole	Olabode	Nigeria	CUTANEOUS MALIGNANCIES PRESENTING AS SUPERFICIAL ULCERS
158	Oyewole	Olugbenga	Nigeria	MALIGNANT TUMOURS OF INFANCY AND CHILDHOOD IN A TERTIARY HEALTH CARE: OUR EXPERIENCE
161	Plo	Kouie	Ivory Coast	CLINICAL MANAGEMENT OF DELAYED DIAGNOSED BURKITT'S LYMPHOMA REPORT OF 21 NEW CASES
169	Sayed	Shahin	Kenya	CONCORDANCE OF HISTOLOGIC GRADE, LYMPHOVASCULAR INVASION AND BIOMARKERS IN BREAST CANCER ON PAIRED CORE BIOPSY AND DEFINITIVE SURGICAL SPECIMENS
170	Sayed	Shahin	Kenya	A NOVEL APPROACH TO BREAST CANCER SCREENING CAMPS
189	Venter	Vlooi	South Africa	JOINING HANDS IN CERVICAL SCREENING IN SOUTH AFRICA
191	Vuhahula	Edda	Tanzania	PROLIFERATIVE ACTIVITY AND MICROVESSEL DENSITY EXPRESSION IN MALIGNANT MELANOMA FROM BLACK AFRICANS
193	Wata	David	Kenya	DETERMINANTS OF BREAST CANCER TREATMENT OUTCOMES AT KENYATTA NATIONAL HOSPITAL
195	Willem	Pascale	South Africa	B-CELL LYMPHOMA UNCLASSIFIABLE WITH FEATURES INTERMEDIATE BETWEEN DIFFUSE LARGE B-CELL LYMPHOMA AND BURKITT LYMPHOMA, A COMMON DIAGNOSIS IN HIV ASSOCIATED LYMPHOMA

SUNDAY, 24 NOVEMBER

PLENARY

Abayomi, Emmanuel Akinola

MANAGEMENT OF HIV/AIDS-ASSOCIATED NON-HODGKIN'S LYMPHOMAS: SEPARATING FACT FROM FICTION

Haematology

09h10–10h30

Saturday

23 November

2013

Emmanuel Akinola Abayomi*

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In patients with HIV and in particular heavily undertreated population with low HAART coverage (or patients with inadequately suppressed virus) the risk of viral induced lymphomagenesis is primarily due to HHV8 and EBV. Risk appears to be diminished significantly when CD4 counts are maintained above 500 cells/ μ L. This supports the evolving strategy that maintaining high levels of CD4 count at all times by earlier intervention with HAART. The most common HRL include Burkitt lymphoma (BL) and diffuse large B-cell lymphoma (DLBCL). Lymphomas occurring specifically in HIV patients include primary effusion lymphoma (PEL) and its solid variants, lymphoma associated with KSHV-related multicentric Castleman disease (MCD), and plasmablastic lymphoma. For HIV-infected patients with B-cell NHL, solid evidence points to the safety and efficacy of combined treatment including Rituximab, as in the general population. Rituximab based protocols have shown significant improvement of survival; however caution in the use of Rituximab in patients with CD4 count $< 50/\mu$ L is advocated. A question is still debated concerning the use of HAART concomitantly or just after CT, due the potential risk of adverse drug-drug interactions. The optimal therapy for AIDS-BL is still controversial, although the CHOP backbone is not currently recommended. At this time, it is reasonable to recommend more intensive protocols for BL patients on effective HAART such as CODOXAM. Several new treatment strategies including the introduction of proteasome inhibitors, angiogenesis inhibitors and targeted therapy are been tested. Large cohort clinical trials and high quality biobanking need to be established to define optimal solutions and define genomic pathways for potential therapy.

Background/Objective Wilms Tumor (WT), the commonest solid tumor in Kenyan children, has a 2-year event-free survival (EFS) of 35% and a relapse rate of 65%, at the last report. We set out to clarify factors linked to these poor outcomes.

Methods A comprehensive web-based WT registry, comprised of patients from the national referral hospital and the three main tertiary hospitals treating childhood cancers was established for all WT patients diagnosed between January 2008 and January 2012. The following was extracted from the files; demographic characteristics, treatment regimens, and enrolment in the National Hospital Insurance Fund (NHIF). Children below 15 years having both a primary kidney tumor and histology consistent with WT were included.

Results A hundred thirty-three (133) patients were identified. Their mean age was 41 months, 53% were males and the majority were in stage II (42%) and stage III (36%). Enrolment into NHIF was 54%. The overall 2-year EFS was 52.7% for all patients, although 50% were lost to follow up (LTFU). Among the patients who completed all scheduled standard therapy, the 2-year EFS was 94% for those enrolled into NHIF and 28% for those not enrolled. There was a 12.3% difference in completion of all therapy between those enrolled and not enrolled ($p=0.002$).

Conclusions Survival of WT patients has improved. Patients enrolled in NHIF tended to complete the standard therapy and had a lower hazard of death (Cox 0.192, $p < 0.001$) compared to those who did not enrol. Efforts in Kenya, and other developing countries, should be made to enhance compliance with treatment through health insurance.

WORK- SHOP

Free
communication
of abstracts I
11h00–13h00
Friday
22 November
2013

Abera, Aron

INVESTIGATING POLYMORPHISM IN THE KAPOSI'S SARCOMA-ASSOCIATED HERPES VIRUS G-PROTEIN COUPLED RECEPTOR GENE IN SOUTH AFRICAN KAPOSI'S SARCOMA TUMORS

Aron Abera*¹; Thuraya Isaacs²; Gail Todd²; Arieh Katz¹

¹MRC/Research Group for Receptor Biology, IIDMM, University of Cape Town, South Africa; ²Division of Dermatology, Department of Medicine, University of Cape Town, South Africa

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Kaposi's Sarcoma (KS) is the most common AIDS-related malignancy in sub-Saharan Africa. Kaposi's sarcoma-associated herpes virus (KSHV) is the etiologic agent of KS. KSHV has been classified based on variability in Open Reading Frame K1 (ORFK1) region into six major subgroups (A-F) and subtype B and A5 predominate in Africa. The viral G protein-coupled receptor (vGPCR) is the key molecule for the initiation and maintenance of KS.

The aims of this study were to classify the KSHV isolated from the tumor biopsies, to determine sequence polymorphism in the vGPCR gene and to investigate the functional consequences of the identified vGPCR variants. Genomic DNA was extracted from the biopsies and the full length of the KSHV vGPCR and ORFK1 cDNA were PCR amplified and sequenced. Multiple sequence alignment of KSHV ORFK1 and vGPCR region from South African KS viral isolates and reference strains were performed using Clustal W tool. The ORFK1 gene analysis (n=103) revealed that Subtype A5 was the most common (51 samples), followed by B (42 samples), which are all subtypes prevalent in Africa.

In addition, 6 isolates had the European viral subtypes. While, viruses found in 4 patients did not belong to any of the known subtypes. Multiple nucleotide sequence alignment of the vGPCR coding region (106 Samples) revealed that sequences from 104 samples were different compared to the prototype sequence.

A total of 26 base pair changes were identified and 3 nucleotide changes resulted in amino acid substitution (An Aspartic acid to Glutamic acid (D5E) and a Glycine to Glutamic acid (G25E) in the NH2 terminus and a Valine to Alanine (V163A) in the 4th transmembrane domain).

In addition, a deletion of three base pairs that resulted in a deletion of Aspartic acid in the NH2 terminus was identified. These four variant vGPCRs have been expressed in COS cells to assess the functional consequences of these mutations.

POSTER 011

Friday
22 November
2013

Abnet, Christian

A STUDY OF POLYCYCLIC AROMATIC HYDROCARBON EXPOSURE IN BOMET, KENYA, AN AREA WITH HIGH RATES OF ESOPHAGEAL SQUAMOUS CELL CARCINOMA

Christian Abnet*¹; Jeremy Hedges²; Stephen Burgert²; Russell White²; Paul Strickland³; Sanford Dawsey¹

¹National Cancer Institute, United States; ²Tenwek Hospital, Kenya; ³Johns Hopkins University Bloomberg School of Public Health, United States

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Objective The incidence of esophageal squamous cell carcinoma (ESCC) varies widely across the globe, but several previous studies showed that high exposure to polycyclic aromatic hydrocarbons (PAH) is a common feature of afflicted populations. We have conducted a pilot for a case-control study of ESCC at Tenwek Hospital in Kenya, where ESCC is the most commonly diagnosed cancer. We used 80 urine samples from controls collected in this pilot to assess exposure to PAHs using the urine concentration of the signal compound 1-hydroxy pyrene glucuronide (1-OHPG).

Methods 80 asymptomatic adults living within 50 km of our institution completed questionnaires about lifestyle and provided a urine sample. A 5 ml aliquot of urine was frozen and shipped to our laboratory for measurement of 1-OHPG.

Results 1-OHPG was detectable in the urine of 92.5% of subjects. The median urine 1-OHPG concentration was 7.14 pmol/ml. All subjects with measurable exposure were above 1 pmol/ml, which is indicative of moderate exposure similar to cigarette smoking. 49 subjects (61%) were above 5 pmol/ml, indicating high exposure to PAHs typically seen only in the occupationally exposed (e.g. blast furnace workers).

Conclusions 1-OHPG in urine reflects recent exposure to smoke, soot, and charcoal. Here we showed that the population surrounding Tenwek Hospital is heavily exposed to PAHs, which may play a role in the burden of ESCC in this population. Future work will focus on determining the sources of exposure and estimating the association with ESCC risk.

WORK- SHOP

Adebiyi, O Akindele

THE IMPORTANCE OF SMOKING CESSATION FOR CANCER PATIENTS AND HOW TO HELP THEM

Tobacco-related cancers

11h00–13h00

Saturday

23 November

2013

Akindele O Adebiyi*

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The advantages from quitting smoking when cancer is diagnosed are enormous. Evidence suggests that cessation leads to better treatment outcomes, survival and quality of life of cancer patients. Yet current tobacco use is rarely documented by health professionals treating cancer patients thereby losing the opportunity for improving patients' outcomes.

The discussion explores the reasons for this apparent lack of documentation based on a systematic review of health professionals' attitude and practice, preliminary analysis of completed cancer-related studies and cessation training programmes within a sample of tertiary hospitals. It also presents the current practice in a few sampled hospitals based on examination of medical records and Focus Group Discussions. Self-reported smoking status studies revealed no current tobacco use. In real practice though, a few cases of smoking amongst patients receiving treatment have been reported. However, the health professionals interviewed admitted to non-documentation of current smoking status amongst cancer patients due to their belief about its rarity. Preliminary analysis from an ongoing study documented current tobacco use amongst caregivers of cancer patients in one of the tertiary hospitals in Nigeria.

Although general psycho-oncology practice also exists in some of the tertiary hospitals, specialized cessation services for cancer patients and their care-givers do not exist. While literature documents clear advantage to cessation, the systematic enquiry into smoking status of cancer patients is deficient in most settings in LMIC. Beyond the potential benefit to the cancer patient, the benefit to the caregiver of having a cessation programme in place has been greatly over-looked. The cancer patient can also be a rich resource for peer led smoking cessation. It is thus important that universal assessment and documentation of tobacco use must be instituted as a first step to tobacco cessation.

POSTER 014

Adejimi, Adebola

MISCONCEPTION AND MYTHS ABOUT CANCERS AMONG ADULTS IN A RURAL COMMUNITY OF OSUN STATE, NIGERIA

Adebola Adejimi*; Callistus Akinleye; Adenike Olugbenga-Bello
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Thursday
21 November
2013

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Background Cancer is a major disease burden across the world as the prevalence and mortality rates are on the increase worldwide. Its prevention and control is blurred by misconception and myths.

Objective The aim of this study was to assess the misconception and myths concerning cancers among adult in Ilie, a rural community of Osun State, Nigeria

Methodology A purposive sampling technique was used to select 68 participants in 8 focus groups discussion. Respondents were in homogenous groups based on their age, gender and marital status. A pretested focus group guide was used to facilitate the discussion. Responses were tape-recorded, transcribed and analysed thematically.

Results Participants perceived cancer as a major health problem but their knowledge was limited. Majority believed that cancer is contagious. There were diverse perception on the cause of cancer ranging from punishment for past sin, evil's eyes and God's curse. Breast and gynaecological cancers such cervical cancer, ovarian and endometrial cancer were the types of cancers that were mentioned across the groups. Only a few mentioned prostate cancer. More than half of the participants believed that cancer is mainly the disease of female. Majority believed that cancer can be prevented by regular religious activities. Only a few believed that prevention is possible by regular cancer screening. Some participant mentioned that treatment of cancer by orthodox medicine can worsen it. Less than half of the women knew about self-breast examination. Some female participants had heard of Pap smear test but did not know where it can be done. Majority of the women had not heard of HPV and its association with cervical cancer. Although some female participants recognized unexplained vaginal bleeding as a symptom of cervical cancer, participants generally were unfamiliar with gynaecologic cancer symptoms. Majority of the men did not know about screening for prostate cancer. All the respondents desired to know more about cancer and its prevention. Participants reported learning about cancers from friends and family members.

Conclusion Participants lacked critical knowledge needed to understand cancer risk and seek appropriate care. Strategies for communicating accurate information and raising awareness about cancer and its prevention should be implemented especially among the rural dwellers.

Thursday
21 November
2013

Samuel Adejoh*¹; Adebanke Falade²

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Purpose To identify and examine social factors that determines women's participation or uptake of cervical cancer screening.

Method A cross-sectional survey comprising only women aged 19 years and above participated in the study. A total of 200 women were systematically selected using probability sampling technique. The data were analysed using percentages, chi-square and logistic regression.

Result All the women in the study did not perceived themselves to be at risk of cervical cancer, while 61% had not heard about cervical cancer. Educational attainment ($P < .000$), health insurance ($P < .001$), awareness of cervical cancer ($P < .000$), belief in hereditary nature of cervical cancer ($P < .000$), having sexually transmitted diseases ($P < .007$), awareness of screening center ($P < .000$), time barrier ($P < .000$), family support ($P < .000$), doctor's recommendation ($P < .000$) were all significantly related to cervical cancer screening. The logistic regression shows that Married women were .027 times less likely to go for screening compared to those that were single. Women who were aware of cervical cancer were 13.818 times more likely to have undergone screening than those who were not aware. Women who perceive a relative having cervical puts them at risk were 12.929 times more likely to have undergone screening than those who don't have such perception. When a screening is performed by a female specialist, women were 234.684 times more likely to have undergone screening than when performed by a male specialist.

Conclusion There is the need to continue with awareness creation campaign, encouraging women to go for screening. Doctors should be involved in advocacy by recommending and persuading women to go for cervical cancer screening.

Key words Cervical cancer screening, awareness of cervical cancer, female specialist, married women, educational attainment

Saturday
23 November
2013

Kayode Adeniji*¹; Dezheng Huo²; Ganiyu Rahman¹; Tanimola Akande¹; Samuel Olatoke¹; Halima Akande¹; Kabir Durowade³; Abiola Durojaiye¹; Gabriel Ayilara¹; Funmi Olopade²

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Objectives To study the clinico-pathological characteristics of breast cancer in Nigerian women and factors related to patient survival.

Materials and methods Questionnaires were used to collect data from follow-up patients while contacts were made with others through their addresses and phone numbers. Information on diagnosis and treatment were obtained from patients' case files.

Results Of 203 patients seen between 2003 and 2007, 101 were included in cohort with median follow-up time of 8.3 months. Mean (SD) age at diagnosis was 49.2 (11.9) years. While 32 (36.8%) patients had pathologic stage 4 tumors and 19 had stage 3 tumors, 16 (19.8%) were in clinical stage 4. Eight-five patients (84.1%) had infiltrating ductal carcinoma. Molecular subtypes include Luminal A 16, Luminal B 8, HER2+/ER- 19, Basal-like 20, Unclassified 26 while 11 had incomplete hormonal profiles. Majority of patients (80.8%) had mastectomy and most received tamoxifen regardless of ER/PR status. Of the 95 patients with some follow-up data, 8 patients died and 31 had local regional/metastatic recurrence. Recurrence-free survival was best for stage 1 tumors and worst for stage 4. Other clinical, pathologic features, including ER, PR, and subtypes, were not significantly associated with recurrence-free survival.

Conclusion Recurrence-free survival which was best for stage 1 tumours underscores the need for early diagnosis and prompt treatment of breast cancer cases. Efforts should be intensified by governments and non-governmental organizations to strengthen community mobilization to increase the awareness of women. Longer follow-up will be taken to examine the prognostic value of breast cancer molecular subtypes.

WORK- SHOP

Adeniji, Kayode

UPDATE ON THE PATHOLOGICAL APPRAISAL OF THE CARCINOMA OF THE FEMALE BREAST IN ILORIN, NIGERIA

**Free
communication
of abstracts IV**
14h30–17h30
Saturday
23 November
2013

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Objectives To study and compare epidemiological pattern of breast cancer in Ilorin, North Central Nigeria between a recent study (1998–2012) with a previous study (1979–1997).

Materials and methods Histologically diagnosed breast cancer cases, within the study periods, diagnosed in Pathology department of University of Ilorin Teaching Hospital (UITH), Ilorin were used. Data were obtained from the histopathology registers and reports. Paraffin sections were reviewed and diagnoses confirmed. Test of proportion was applied to compare the number of breast cancer cases in the two studies. Level of statistical significance was set at $p < 0.05$.

Results For the two studies, the commonest histologic type was invasive ductal carcinoma, while the least common was Paget's disease. More cases of breast cancer were recorded among those less than 40 years in the second study compared with the first one. This was more pronounced in the age group 30–39 years. Consequently, statistically significant difference in the proportion of cases was seen between the two study groups in the age group 30–39 years. The 95% confidence interval obtained for the age group was -0.2657 to -0.0983 ($p < 0.05$).

Conclusion Breast cancer is not only increasing, patients still present late to the hospital. The proportion of younger women affected is rising. Effort should be geared towards raising the level of awareness of the disease, manpower development as well as provision of necessary facilities for screening, early diagnosis and management.

Saturday
23 November
2013

Adenike Adeniji Sofoluwe*; Millicent Obajimi
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Background Several reproductive factors have been incriminated as risk factors for breast cancer.

Aims and objectives We sought to describe the sonographic pattern and features of pregnancy related breast diseases in women imaged in Ibadan south west Nigeria. Socio-demographic factors, breast pattern and sonographic findings were also evaluated.

Materials and methodology We retrospectively retrieved the sonomammographic records of 17 pregnant and 2 lactating women referred to and imaged in the department of radiology, University college hospital Ibadan, between 2006 and 2012.

Results Nineteen women with ages between 24–42 years [Mean 31.5±] pregnant or lactating were referred to the radiology department for sonomammographic evaluation. Majority of the women were in the 3rd decade. Referral was mainly by family physicians from the general outpatient clinic 8, while 4 were self-referred and 2 from the radiotherapy and obstetrics and gynaecology departments. Seventeen [89.5%] were lactating and breastfeeding while 2 [10.5%] were pregnant. Nipple discharge [89.5%] was the predominant presenting complaint in the group of women. The majority attained menarche at age 15 [31.6%]. Most of the women were multi-parous 17[89.5%] and possessed higher education 14 [73.3%]. Sixteen [84.2%] women had no previous breast disease while only 1 [5.3%] woman had a positive family history of breast cancer. They weighed between 44–102kg [mean 70.71kg±]. Their mean height was 159.7cm. Waist hip ratio was between 0.69-0.93 [Mean 0.83]. The heterogeneous fibroglandular pattern was predominant in 15 [78.9%] women. Final BIRADS assessment 2 was most frequent [11/19] 57.9% while 42.1% were assigned to BIRADS categories 0, 1, 3 and 5 [2/19] 10.5%. Histological diagnosis of Invasive ductal carcinoma was made in the 2 women with the initial final BIRADS of 5.

Conclusion Benign Breast diseases are predominant in pregnant and lactating women however malignant lesions can also be found.

Adenike Adeniji Sofoluwe*
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Sunday
24 November
2013

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Objective To investigate a DNA sequence of 600 bases of nucleotides utilizing bioinformatics.

Methods An initial search through the BLAST n database of the NCBI was performed, to detect previous documentation. Determination of its nature, importance as evidenced by its preservation in different species was then sought. BLAST P search was then made to check for similar proteins in the database. A search through the OMIM, MMDB/PDB database and The NCBI websites gave an overview of the gene. Using the HapMapProject website, SNPs and isoforms of the nucleic acid were identified. Emsembl website and gene cards were also utilized.

Results BLAST N version 2.2.26+ identified the sequences as a nucleic acid, likely Homo sapiens scribble (SCRIB) mRNA complete cd, 5153 in length with an ascension number AY062238.1 with several variants with E value of 0.0 and an alignment score of >200, maximum score of 975'. ORF finder gave 6 Open Reading Frames with the longest +2 from 8... 599–593 197 amino acid transcript. BLAST P detected a Leucine-rich repeat (LRR) protein with an unknown Function. The OMIM website gave an overview of the scribb gene, its location, highlighting its different names, the role it plays in cellular polarization and tumour suppression in both humans and mouse animal models. The NCBI website gave more detailed information about the gene in addition to what was found on OMIM. Three SNPs with G->A, C->G and A->T were identified with HapMapProject. Two isoforms were seen: A. form with ascension number NM_182706 and B. form with ascension number NM_015356. Scribb also interacts with other genes like the ARHGEF7, EXOSC10, LPP, STX, TJP2, TRIP6, DMWD, EXOSC10, PHLPP1, Shoc2, TGFBR 1 AND 2, THSR AND UBE3A. Emsembl website found conservation in 5/6 of 17 species [mouse, zebra, rat, chicken, fruit fly, and C.elegans] this was also confirmed by gene cards.

Conclusion Bioinformatics can effectively evaluate unknown sequences of nucleotides, RNAs, Proteins and DNAs.

**POSTER
019**

Adio-Moses, Ruth Ochanya

**FEMALE ADOLESCENTS' KNOWLEDGE OF CERVICAL CANCER
SCREENING AND IMMUNIZATION: SOME FACTORS OF RELEVANCE
TO BRIDGING SCIENCE AND HUMANITY**

Friday
22 November
2013

Ruth Ochanya Adio-Moses*
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New HPV infections can be acquired at any age and prevalence of infection is greatest in women less than 25 years of age but its morbidity and mortality in Nigeria could be greatly reduced using preventive health methods and promoting safe sexual practice. Recent trend such as screening and immunization especially before sexual debut and the use of other scientific approach in cervical cancer prevention, indicates that scientific methods must be applied with greater vigor and imagination to the behavioral aspect of our culture.

To this end, a 10 question survey questionnaire was developed and administered to a total of 240 female adolescents aged 15–20 from four semi-urban schools or strata across Ibadan metropolis. Survey questions addressed terminology and general knowledge of cervical cancer screening and immunization, an overall response rate of 83.3 percent was obtained across the 4 strata, with 200 questionnaire returned. Results indicates that knowledge of cervical cancer screening is not significant ($X^2=18.332$ $P=0.0000$ ($p<0.05$), showing 23% with correct knowledge of screening. Also knowledge of cervical cancer immunization is not significant ($X^2=19.45$ $P=0.0000$ ($p<0.05$), only 12.3 had correct knowledge of immunization.

Although knowledge is not a direct predictor of health behavior, health behavior theories posit that it is a distal factor. In bridging science and humanity Health education should be used as a tool to increase awareness of early detection and benefits of the HPV vaccine in preventing cervical cancer through age-appropriate school education programme.

Thursday
21 November
2013

Stephen Agbo*
Usmanu Danfodiyo University Teaching Hospital, Nigeria

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Background The surgical outpatient department of Usmanu Danfodiyo University Teaching Hospital, Sokoto, North-Western Nigeria has witnessed increased cases of malignant breast disease in recent times. The hospital receives referrals mainly from the neighboring state of Kebbi and occasionally from Zamfara. Unfortunately, majority of the patients present late with attendant poor outcome.

Objectives To determine the clinical presentation, prevalence and management outcome of malignant breast diseases in Sokoto, Nigeria.

Method A retrospective review of case notes of all patients with histologically confirmed breast carcinoma between 2007 and 2011 was carried out. Data studied included demographic characteristics, stage at presentation, management and follow up. Results were analyzed using the windows SPSS Statistics 17.0.

Results A total of 1822 patients were seen, out of which 816 (44.8%) had malignant breast disease and 1006 (55.2%) had benign disease. 288 women had breast cancer in 2011 (new and pre-existing cases) giving a prevalence rate of 10.4 cases per 100,000 women. The male: female ratio for breast cancer was 1: 203. The mean and modal age group for breast cancer was 41–50 years. Invasive ductal carcinoma was responsible for 800 (98%) of cases seen. Invasive lobular carcinoma followed with 12 (1.5%) cases. 452 (55.4%) patients presented with Manchester stage 111 disease while 359 (44.0%) patients presented with stage 1V disease. Only 5 (0.6%) patients presented with stage 11 disease. No patient was seen with stage 1 disease during the five year study period. Modified radical mastectomy was offered to 414 (50.7%) patients, while 200 (24.5%) patients had toilet mastectomy. Immediate post-operative mortality was 0.8% (5 cases). However, 67 (8.2%) patients died before they were offered surgery. The overall mortality therefore was 9.0% (72 cases). Follow up studies showed that 402 (53.7%) patients were seen during the first year follow up, while 88 (11.7%) patients were seen during the second year. No patient was seen in the third year of follow up.

Conclusion The prevalence rate of breast cancer in Sokoto in 2011 was 10.4 per 100000 women. Late presentation was the norm with 99.4% (811) presenting with advanced disease (Manchester stage III and IV) while 0.6% (5) presented with Manchester stage 11 disease. The overall mortality for breast cancer was 9.0%, with nearly half (46.3%) of patients treated lost in the first year of follow up. Breast cancer therefore continues to carry poor prognosis in this part of the country.

**POSTER
021**

Agboeze, Joseph

**CERVICAL CYTOLOGY PATTERN AMONG HUMAN
IMMUNODEFICIENCY VIRUS SEROPOSITIVE WOMEN AT FEDERAL
TEACHING HOSPITAL ABAKALIKI, NIGERIA**

Sunday
24 November
2013

Joseph Agboeze*; Ezeonu Paul Olisaemeka; Onoh Robinson; Ouj Umeora;
Chukwuemeka Ukaegbe; Azubuike Onyebuchi; Uzomaka Agwu
Federal Teaching Hospital Abakaliki, Nigeria

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Background Carcinoma of the cervix is a global public health problem responsible for an estimated 300,000 deaths annually. It is the commonest female genital tract malignancy in Nigeria. Cervical cancer can be prevented by routine screening aimed at detecting premalignant and early invasive lesions. Unfortunately, such programs are not very effective in Nigeria.

Objectives The objective is to determine the prevalence, types and degree of abnormal cervical cytology in HIV positive and HIV negative women as well as to determine if there is any relationship between the CD4 cell count and the abnormal cervical smear.

Methodology The study was a prospective cross sectional study of 206 HIV positive and 208 HIV negative women attending the HIV clinic and the general outpatients clinic at the Federal Teaching Hospital Abakaliki. Papanicolaou smear was collected from both HIV positive and HIV negative women who gave consent to participate in the study and the results analysed. Statistical analysis of results was carried out using the SPSS version 16 software package.

Results The prevalence of squamous intraepithelial lesion(SIL) was 6.3% in HIV Positive patients and 1% in HIV negative patients . $X^2=11.550, P\text{-Value}=0.013$. Low CD+4 Count was associated with increased risk for SIL $X^2=52.660, P\text{-Value}=0.001$. Low CD+ count was found to have increased risk factor for SIL.

Friday
22 November
2013

Dem Ahmadou*
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Introduction Le cancer du col utérin est l'une des pathologies malignes les plus fréquentes rencontrées au cours de la grossesse. Son incidence pendant la grossesse est de 1,6 à 10,6/10 000 grossesses et les taux les plus élevés sont retrouvés dans les pays à forte natalité. Notre étude avait pour but de déterminer les aspects diagnostiques et thérapeutiques de cette association.

Patientes et méthode Il s'agissait d'une étude rétrospective et descriptive réalisée à l'Institut Joliot Curie de Dakar de Janvier 2000 à Décembre 2007. Nous avons sélectionnés les patientes qui présentaient un cancer du col utérin confirmé par un examen anatomo-pathologique découvert soit pendant la grossesse soit dans le post-partum, soit après un avortement.

Résultats L'âge moyen était de 30 ans avec des extrêmes de 24 et 35 ans. L'aspect ulcéro-bourgeonnant était le plus retrouvé (50%). Le type histologique commun était le carcinome épidermoïde.. Pour cinq patientes le cancer était découvert après 28 semaines d'aménorrhée, pour une patiente avant vingt semaines et enfin un cas découvert 3 mois après l'accouchement. L'issue de la grossesse était variable, trois patientes avaient accouché par césarienne dont l'une en plus avait bénéficié d'une colpohystérectomie avec lymphadénectomie, trois autres patientes avaient accouché par voie basse, une patiente a fait un avortement spontané. La survie globale à 5 ans était nulle.

Conclusion L'association cancer du col de l'utérus et grossesse est une pathologie doublement morbide. Sa fréquence devrait être en baisse grâce à la vaccination contre le virus du papillome humain et le dépistage par le frottis cervico-vaginal. La létalité reste cependant élevée.

WORK- SHOP

Ahmadou, Dem CANCER DU SEIN ASSOCIÉ À LA GROSSESSE

Dem Ahmadou*
Universite Cheikh Anta Diop, Senegal

**Free
communication
of abstracts V**
11h00–13h00
Sunday
24 November
2013

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Introduction L'association d'un cancer du sein et d'une grossesse est définie par la survenue d'un cancer du sein pendant la grossesse ou durant l'année suivant l'accouchement.

L'Objectif de cette étude était de décrire le profil épidémiologique, diagnostic et pronostique des patientes et évaluer leur prise en charge thérapeutique.

Méthodologie Il s'agissait d'une étude rétrospective portant sur 28 dossiers de patientes porteuses d'un cancer du sein associé à la grossesse colligés à l'Institut du Cancer de Dakar durant la période allant du 1er janvier 2000 au 31 décembre 2007. Les paramètres épidémiologiques, cliniques, anatomo-pathologiques et thérapeutiques ont été déterminés. La survie à 5 ans a été appréciée par la méthode de Kaplan Méier.

Résultats La fréquence de l'association était de 2,9 %, l'âge moyen de 33,7 ans. L'âge moyen de la grossesse était de 4 mois avec des extrêmes de 1 et 8 mois. Les grandes multipares prédominaient (42,9%). La circonstance de découverte la plus fréquente était celle du nodule du sein (35,7%), la taille clinique T4 était la plus fréquente (64,3%), le statut ganglionnaire N2 était le plus fréquemment retrouvé (42,9%) et le stade IIIB était le plus présenté (57,1%). Le carcinome canalaire infiltrant était retrouvé chez 8 patientes (28,6%). En chimiothérapie néo-adjuvante L1, le protocole CMF était le plus prescrit (39,3%). Une chirurgie mammaire a été effectuée chez 42,9% de nos patientes. L'interruption thérapeutique de la grossesse a été nécessaire pour démarrer le traitement médical dans 3 cas. La survie globale à 5 ans était de 18%.

Conclusion Cette étude montre que l'association est rare, les patientes viennent en stade tardif, le diagnostic est difficile, les indications thérapeutiques sont limitées par les contraintes de l'association. Nos résultats sont péjoratifs comme le montre la survie globale à 5 ans.

WORK- SHOP

Ahmadou, Dem

**LES CANCERS DU COLON DANS LES HÔPITAUX DE DAKAR: A
PROPOS DE 194 CAS**

**Free
communication
of abstracts IV**
14h30–17h30
Saturday
23 November
2013

Dem Ahmadou*
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Introduction Le cancer du côlon représente les deux tiers des cancers colo-rectaux qui à leur tour occupent la deuxième place des cancers en Europe. Son incidence augmente tous les jours dans nos pays. L'objectif de cette étude était de décrire le profil épidémiologique, clinique, thérapeutique et évolutif du cancer du côlon dans les hôpitaux de Dakar.

Patients et méthodes Nous avons réalisé une étude rétrospective, descriptive et analytique de Janvier 2001 à Décembre 2011, incluant 194 patients pris en charge dans les principaux hôpitaux de Dakar. Les paramètres épidémiologiques, diagnostiques et thérapeutiques ont été décrits. La survie à 5 ans a été appréciée par la méthode de Kaplan Meier.

Résultats L'étude a colligé 194 patients dont 107 hommes et 87 femmes soit un sexe ratio de 1,25. L'âge moyen des malades était de 55,5 ans. La répartition selon les stades montrait : stade I (8,75%), stade II (17%), stade III (25,24%) et stade IV (34,02%). Dans cette série 76,8% des patients ont eu une chirurgie dont 30,2% en urgence et 69,7% en programme réglé. La chimiothérapie était faite dans 57,2% soit à titre curatif dans 74,8% et palliatif dans 25,2%. Le protocole le plus utilisé était le LV5 FU2 dans 50,45%. La survie moyenne était de 39 mois, la survie globale à 5 ans était de 37%.

Conclusion Le cancer du côlon devient une pathologie fréquente dans nos pays, son pronostic pourrait être amélioré grâce un diagnostic précoce.

POSTER 023

Akakpo, Patrick Kafui

A HISTOPATHOLOGICAL CLASSIFICATION OF OVARIAN TUMOURS IN KORLE BU TEACHING HOSPITAL, GHANA

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Korle-Bu Teaching Hospital, Ghana

Sunday
24 November
2013

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Objectives To determine the histological types of ovarian tumours diagnosed at the Korle-Bu Teaching hospital, their frequency, age distribution, presenting signs and symptoms to inform clinicians about the best management approach, in order to improve outcome

Methodology All histopathology materials of ovarian tumours diagnosed at the department of pathology of the Korle-Bu Teaching Hospital Accra, Ghana over a ten year period (2001 to 2010) were reviewed. Biographical and clinical data of the patients were collected. All tumours were classified according to the World Health Organisation 1999 classification. The results were entered into Epi-info and analysed.

Results 706 ovarian tumours were reviewed. The median age of patients was 36.5 years with most tumours occurring between 25–34 years (25.6%). Most patients (47.7%) presented within one month of onset of symptoms, mostly with a lower abdominal mass (38.5%). The commonest tumours in this study were germ cell tumours (41.9%), with mature teratoma being the single most common ovarian tumour (39.2%). In older adults, serous adenocarcinoma was the most common malignant tumour (35.9%), followed by granulosa cell tumour (27.3%). In patients younger than 20 years, Burkitt's lymphoma was the commonest malignant tumour.

Conclusion Variations exist in the frequency and type of ovarian tumours among different populations. Germ cell tumours were the most common ovarian tumour in this study, dominated by mature teratomas. Adenocarcinomas present at an earlier age compared to findings of other Western studies and are dominated by serous carcinomas. Burkitt's lymphoma was the commonest malignant ovarian tumour in children, in this study.

WORK- SHOP

Akele, Maie-Thérèse

FINE NEEDLE ASPIRATION OF THE LUMPS AND BUMPS IN THE BODY

Maie-Thérèse Akele*

Faculté des Sciences de la Santé de Cotonou, Université d'Abomey-Calavi,
Benin

Pathology II
14h30–17h30
Friday
22 November
2013

Correspondence Akele, Maie-Thérèse

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The fine needle aspiration of the lumps and bumps in the body is a sampling technique collected liquid or juice solid tissue masses, superficial or deep. These samples contain cells that will be studied for diagnostic purposes. The technique is minimally invasive. When the masses are superficial, the levy is easy and simple. When they are deep, ultrasound guidance is often necessary. During the workshop, the participants on the basis of their professional experience address the following questions:

- What is the importance of FNA as a sampling technique in pathology?
- What are the technical difficulties FNA according to the organs and how to solve them?
- What are the problems of staining slides?
- What are the limits of cytodiagnostic?
- How to consider the training of pathologists cytodiagnostic?
- What is the role of the radiologist for FNA? – What are the challenges and issues of training cytotechnicians in Africa?

POSTER 024

Akin-Odanye, Elizaabeth Oluwatoyi

BURDEN OF CAREGIVING AND COPING STYLES AMONG CAREGIVERS OF CANCER PATIENTS

Elizaabeth Oluwatoyi Akin-Odanye*
Psycho-Oncology Society of Nigeria, Nigeria

Sunday
24 November
2013

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Objective Psychological distress in caregivers often relates to the burden of care giving and the coping styles adopted. This study therefore is designed to determine the burden of caregiving as well as the most commonly used coping styles among caregivers of cancer patients.

Method This descriptive study assessed the burden of caregiving among randomly sampled 146 willing caregivers of cancer patients in Radiotherapy Department, University College Hospital, Ibadan. The respondents had a mean age of 35.45 with an age range of 14–72. Females made up 47.3% of the caregivers while 52.7% were males. 55.5% had less than a first degree educational qualification. Zurit Burden Interview (ZBI) was used to assess the burden of caregiving while coping style was assessed using a coping instrument adapted from one used in a longitudinal study of coping and burnout among Japanese family caregivers of frail elders. Both instruments were validated for cultural suitability. Data obtained was analyzed using frequencies, percentages and mean.

Results Participants were grouped into low and high burden of caregiving based on a median score of 18 obtained for the ZBI. Participant with scores below 18 were grouped as having low burden while those with 18 and above were said to have high burden. Hence, 82 (56.2%) and 64 (43.8%) had low and high burden of care giving respectively. The coping styles always used were spiritual support 141 (96.6%), positive acceptance 138 (94.5%), formal support seeking 110 (75.3%), informal support seeking 104 (77.5%) and keeping pace 87 (59.6%). Participants who did not commonly use positive acceptance had high burden compared to those who did. Those who commonly used diversion had high burden compared to those who did not.

Conclusion The burden of caregiving is high. Psychosocial interventions to reduce the burden of caregiving should be developed to enhance caregivers capacity to cope with the demands of caring for their loved ones with cancer.

WORK- SHOP

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Akingbola, Titilola

TIME TO MORTALITY IN A NIGERIAN BREAST CANCER COHORT

Titilola Akingbola*¹; Theresa Elumelu-Kupoluyi²; Adefemi Afolabi³; Adeoye Adewunmi⁴; Udeme Ekrikpo⁵; Millicent Obajimi⁶

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Objective To describe the pattern of male and female breast cancer in Ibadan, Nigeria and determine the factors that predict mortality among our patient cohort.

Methods A ten year retrospective cohort study of breast cancer patients at the University College Hospital, Ibadan.

Results Three hundred and forty one patients [332 (97.1%) being females and 10 (2.9%)], with a mean age of 57.9 ± 16.6 years for males and 46.8 ± 10.9 years, $p=0.002$. Most patients were either of the Ibo tribe (57.2%) or Yoruba (41.1%). At presentation, stages I, II, III, IV were seen in 9%, 18.7%, 42.3% and 30% respectively. Invasive ductal carcinoma was the predominant histologic type (53.9%). A combination of chemotherapy, surgery, hormonal therapy and radiotherapy was employed in 141 (41.2%). The median survival time from diagnosis was 335 (IQR 151–761 days) for the females and 245 (122–519 days) for the males. The mortality rate for the males and females was 1.4 and 1.6 per thousand patient-days respectively ($p=0.37$). Survival analysis did not show any difference in time to mortality between the males and females (log rank test p -value = 0.79). Individuals presenting with Manchester stage IV disease had a hazard ratio of 2.21 (95% CI 1.04–4.69), $p=0.038$ after adjusting for the effect of gender, age and site of tumor.

Conclusion The most important predictor of mortality among our breast cancer patients is late presentation. Efforts at intensified screening for breast cancer will have a positive impact on survival.

Saturday
23 November
2013

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Objective Cancer rates in Africa are projected to double by 2030 due to aging, population growth, and increased cancer risk factors. Detailed understanding of the prevalence and predictors of these risk factors is needed among Africans. The purpose of this study is to assess the prevalence and determinants of adherence to 5 modifiable cancer risk factors in 15 African countries.

Methods Data on adults >18 years was obtained from the 2002-2004 World Health Survey. An individual adherence score was calculated based on current World Cancer Research Fund (WCRF) guidelines on smoking (no smoking), alcohol (men ≤ 14 servings/week; women ≤ 7 servings/week), obesity (BMI 18.5–25 kg/m²), physical activity (30 minutes of moderate physical activity most days a week) and nutrition (5 servings of fruits and vegetables/week). The score ranged from 0 (no guideline met) to 5 (all guidelines met). Average adherence by country, household SES, rural/urban residence, overall health status, and gender were calculated. Determinants of adherence were assessed using multivariable linear regression adjusted for individual and country level characteristics.

Results Adherence to the WCRF guidelines ranged from 1.52 in Ethiopia to 2.86 in Comoros. Males had higher adherence in all countries compared with females (2.17 vs. 1.93). In 6 countries, adherence increased as household SES increased, however in 3 countries the reverse was observed. In most countries, adherence was higher in rural areas compared with urban areas. Residing in low versus high SES households reduced adherence by 0.17 ($p < 0.001$) after adjusting for age, gender, education, marital status. In addition, every % increase in GDP spent on health increased adherence by 0.14 ($p < 0.001$).

Conclusion Adherence to cancer prevention guidelines in African countries is poor. In order to prevent the growing cancer epidemic in the coming decades, interventions and resources are needed to address these highly modifiable behaviors.

WORK- SHOP

Free
communication
of abstracts V
11h00–13h00
Sunday
24 November
2013

Akpan-Idiok, Paulina

CAREGIVERS' PERCEPTIONS OF BURDEN OF CAREGIVING TO CANCER PATIENTS ATTENDING UNIVERSITY OF CALABAR TEACHING HOSPITAL, CALABAR, NIGERIA

Paulina Akpan-Idiok*¹; Agnes Anarado²

¹University of Calabar Teaching Hospital, Nigeria; ²University of Nigeria –
Nsukka, Nigeria

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The aim of the research was to study the informal caregivers' perceptions of burden of caregiving to cancer patients attending the University of Calabar Teaching Hospital, Calabar, Nigeria.

The research adopted a cross-sectioned descriptive design. Two hundred and ten (210) caregivers providing care to advanced cancer patients were purposively selected. Data were collected using a researcher developed questionnaire and standardized Zarit Burden Interview scale. Data collected was analysed using descriptive and chi-square statistics with the help of SPSS 18.0 and PAS 19.0 software.

The burden levels experienced by the caregivers were as follows: severe (46.2%), moderate (36.2%) and trivial of no burden (17.6%). The forms and magnitude of burden experienced were physical (43.4%), psychological (43.3%), financial (41.1%) and social (46.7%), quite frequently and nearly always with psychological and social forms of burden having the highest weighted score of 228. There was a significant ($P \leq 0.001$) inverse association between caregivers' burden and the care receivers' functional ability. The level of burden perceived by caregivers increased as the functional ability of care receiver decreased. Also, the level of burden increased with the duration of care in months ($P \leq 0.000$).

It is recommended that informal cancer caregivers are given support by being offered counselling/training, specialized interventions so as to promote their caregiving skills, and health as well as alleviating caregivers' burden.

POSTER 026

Alabi, Adewumi

AWARENESS OF SELF BREAST EXAMINATION AMONG FEMALE NATIONAL YOUTH CORPS MEMBERS IN LAGOS STATE, NIGERIA

Adewumi Alabi*; Salako Omolola
Lagos University Teaching Hospital, Idi-araba, Nigeria

Saturday
23 November
2013

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Background/Objective A recent study showed that Breast Cancer is the commonest female malignancy. Early detection/presentation and prompt treatment offers the greatest chance of long-term survival in Breast cancer. This survey was conducted to assess the level of awareness and practice of breast self-examination among female youth corp members in Lagos state, Nigeria.

Methodology This is a descriptive cross-sectional survey. It was conducted at the Orientation Camp of National youth corp members (university graduates from tertiary institutions all over Nigeria) in Lagos State. The study sample included 412 female corp members. Data was collected using questionnaires and analysis was done using SPSS software version 17 to obtain information on knowledge and practice of breast self-examination.

Results Majority (54.4%) of the respondents' ages was between 20–25 years, 39.3% were aged between 26–30 years. 78.4 % were single while 22.6% were married. Majority (96.4%) of the youth corp members were aware of self-breast examination, about 53.4% got informed about self-breast examination by a health worker/Doctor. Others were informed through health campaigns, posters and friends. The study showed that 74.8% of the corp members had self-breast examination done, however; only 21.1% practice it monthly, about 47.8% occasionally. Most of them (94.4%) were of the opinion that monthly self-breast was essential in early diagnosis of breast conditions.

Conclusion Awareness and regular practice of breast self-examination among the younger generations of females is useful as it is an important and viable tool for early detection and reducing mortality from breast cancer

Saturday
23 November
2013

Olusegun Alatise*¹; Marty Weiser²; J Chou²; Adewale Adisa¹; Oladejo Lawal¹; Peter Kingham²

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Objectives Colorectal cancer (CRC) is a growing problem in Nigeria. This study analyzed the survival outcome of patients with colorectal cancer at Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC), Ile-Ife, Nigeria and Memorial Sloan Kettering Cancer Institute (MSKCC), New York, United State of America.

Methods A retrospective analysis of a clinicopathological databank of colorectal cancer patients managed at OAUTHC and MSKCC was performed. 169 patients of CRC at OAUTHC with completed records were compared to 1949 patients in the MSKCC databank. Data analysis was performed using Stata Version 13.

Results The median age of the patients in OAUTHC (52 years; age range = 36-65 years) was statistically different from the median age of patients in MSKCC (59 years; Age range = 49-69) ($p < 0.0001$). While the male to female ratio was 3:2 at OAUTHC, it was 1.1 in MSKCC. When comparing patients with stage III and IV disease in OAUTHC to the same patients at MSKCC, we found that 45% of patients at OAUTHC presented with obstruction, compared to only 29% at MSKCC ($p < 0.0001$). Similarly, over half of the patients at OAUTHC had their tumors at rectosigmoid compared to only a third at MSKCC ($p < 0.0001$). Surgical diversion was the only procedure performed in a quarter of patients at OAUTHC. Overall survival was significantly better in patients at MSKCC when compared to that of OAUTHC ($p < 0.0001$). The 3-year overall survival of Stage III patients at MSKCC was 81%, compared to patients at Nigeria (62%, $p < 0.0001$).

Conclusion CRC patients in Nigeria are more likely to be men, present at a younger age, with obstructive symptoms and at a late stage of the disease. They are also more likely to die from the disease when compared to patients at MSKCC.

Saturday
23 November
2013

Olusegun Alatise*; Oladejo Lawal; Augustine Agbakwuru; Anthony Arigbabu;
Abdulrasheed Adesunkanmi; Olusegun Ojo
Obafemi Awolowo University, Nigeria

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Purpose To examine the impact of routine use of colonoscopy on the incidence and clinicopathological features of colorectal cancer in a Nigerian tertiary health facility.

Methods All cases of colorectal cancer seen in Obafemi Awolowo University Teaching Hospital Complex from 1991 to 2011 were retrospectively reviewed. The year of study were divided into two. The first is 1991–2006 which is a period that colonoscopy were not routinely done. The second is 2007–2012 which is the period colonoscopy were routinely done for lower gastrointestinal conditions.

Results Over the 20 year period, 490 cases of colorectal cancer were seen which account for 46.4% of all gastrointestinal cancers. The average yearly incidence of the cases rose from 10–20 cases in 1991–2006 to 50–75 cases per year in 2007–2011. The male to female ratio changed from 3:2 in the first period to 1:1 in the second period. The incidence of occurrence of colorectal cancer in individual younger than 50 years also increases from 18.5% to 43.8% in the last 5 years. There is relative increase in the cecal pole tumor in the second period, though rectal tumor is the most common site in both periods. There is also increase in the occurrence of mucinous adenocarcinoma especially in those below 50 years. There is significant reduction in those patients presenting with metastatic disease at presentation in the second period ($p < 0.036$). Though the resection rate increased in the second period, colostomy rate also increased marginally in the second period. We found also that there is increased use of combination adjuvant therapy in the second half. Analysis of the survival period showed an improvement in the survival period in the last period.

Conclusions This study showed that judicious use of colonoscopy for symptomatic patients with lower gastrointestinal symptoms may help to increase the detection rate of colorectal cancer in rural and semi-rural setting of developing countries.

PLENARY

**Environment
and occupation
in cancer**
09h10–10h30
Sunday
24 November
2013

Albrecht, Carl

PRELIMINARY QUANTITATION OF POTENTIAL CARCINOGENS URANIUM AND LEAD IN SOIL, HAIR AND TEETH SAMPLES OF PEOPLE LIVING CLOSE TO GOLD MINE SLIMES DAMS WEST AND SOUTH- WEST OF JOHANNESBURG

Carl Albrecht*

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The Cancer Association of South Africa (CANSAs) has been investigating the gold mining environment of the Mooi River Catchment for evidence that heavy metals (U and Pb) have entered human tissue and pose a cancer threat. Surprisingly, such bioavailability studies in humans in this environment, have to date not been reported.

All samples were analysed by the Department of Environmental Chemistry at WITS using ICP-MS technology. The following concentrations of lead and uranium (mg/kg), were found; Human hair (borehole water drinkers near Carletonville, n=7): Pb=30, U=0.4; Human hair (Rand Water Board Water, Carletonville, tap water drinkers, n=11) Pb=6, U=0.3; Human teeth (Borehole water drinkers near Carletonville n=1) Pb=122, U=1.1; Human teeth (Potchefstroom tap water, n=4) Pb=43, U=0. Slimes dam sand (Carletonville, n=10): Pb=44, U=14. Slimes dam decant (Carletonville, n=6): Pb=219, U=44; House dust (Carletonville, n=2): Pb=118, U=15; Slimes dam sand (West Rand, n=41): Pb=53, U=198; Slimes dam bricks (West Rand, n=3): Pb=365, U=431; Unexpectedly it was found that lead was markedly more ubiquitous than uranium in all human tissue samples studied (23/23) and in 7/9 sets of data. There are two possibilities concerning the origin of the lead detected, i.e. a geological source and/or the Crowe-Merrill gold precipitation process using lead nitrate (g/g with gold) for gold purification. Lead exposure causes neurotoxicity and cognitive impairment that can give rise to anti-social and destructive behaviour in men. IARC has classified lead as a possible Group 2A carcinogen which has been linked to lung, stomach and brain cancers (gliomas).

These results need to be urgently augmented by further analyses, especially of lead in human tissues, because of the implicit cancer threat.

WORK- SHOP

Ali, Zipporah

ASSESSING TOTAL PAIN IN THE TERMINALLY ILL CANCER PATIENTS IN KENYA'S PUBLIC HEALTHCARE SYSTEM

**Free
communication
of abstracts III**
11h00–13h00
Saturday
23 November
2013

Robai Gakunga¹; Zipporah Ali*²; Esther Munyoro³

¹KEMRI, Kenya; ²Kenya Hospices and Palliative Care Association (KEHPCA), Kenya; ³Kenyatta National Hospital Palliative Care Unit, Kenya

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Objective The Kenyan healthcare system has focused mainly on curative approaches with little or no attention to the suffering of people faced with life limiting illness such as cancer. There is a need to scale up palliative care services in order to address the suffering associated with cancer and improve QoL. There hasn't been any national survey on palliative care needs in Kenya and without such data; it may be difficult to make it a priority at policy level. This is a part of the study that aimed to explore palliative care for terminally ill cancer patients in the Kenyan public healthcare.

Method 251 Patients, 236 family caregivers, 53 Medical Caregivers, 24 Community Leaders and 8 Spiritual Leaders participated. The Patients, Family Care Givers, Medical Care Givers and Spiritual Leaders were interviewed using Questionnaires while the Community Leaders participated through focus group discussions. The Patients, and their carers were from 4 public hospitals in Kenya and the leaders were drawn from the area around the hospitals. Data collection took place from February - July 2009. The FACT-G/FACIT-Sp and ESAS tools were used.

Results Of the patient participants, 35% were male and 65% were female. Female Family Care Givers were 54% and the male were 46%. Family Care Givers were often more educated than the patients. 39% of the patients had missed medication for lack of money. Poor Wellbeing, Appetite, Pain and Fatigue were the most prevalent symptoms. Two Symptom Clusters emerged. 91% of the patients reported they had Physical Pain. Spiritual Pain had the highest correlation to QoL.

Conclusions These findings may be used for baseline information for scaling up palliative care services by service providers and policy makers, for monitoring and evaluation of progress and as a reference point for future research.

WORK- SHOP

**Pain
management**
11h00–13h00
Saturday
23 November
2013

Ali, Zipporah

COMMITMENTS IN THE NCD GLOBAL MONITORING FRAMEWORK AND THE OPPORTUNITIES TO PLACE PALLIATIVE CARE ON THE GLOBAL AGENDA

Zipporah Ali*

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Following the Political Declaration on Non-communicable Diseases (NCDs) adopted by the UN General Assembly in 2011, WHO developed a global monitoring framework to enable global tracking of progress in preventing and controlling major non-communicable diseases – cardiovascular disease, cancer, chronic lung diseases and diabetes – and their key risk factors.

The framework comprises nine global targets and 25 indicators. Member States are encouraged to consider the development of national NCD targets and indicators building on the global framework. The 9 voluntary global targets are aimed at combating global mortality from the four main NCDs, accelerating action against the leading risk factors for NCDs and strengthening national health system responses. The mortality target – a 25% reduction in premature mortality from non-communicable diseases by 2025 – has already been adopted by the World Health Assembly in May 2012. One of the additional indicators under the National Systems Response is Access to palliative care assessed by morphine-equivalent consumption of strong opioid analgesics (excluding methadone) per death from cancer.

This discussion will focus on the commitments in the NCD Global Monitoring Framework and the opportunities to place palliative care on the global development agenda as well as the promise of the palliative care resolution for 2014.

WORK- SHOP

Ali, Zipporah

PALLIATIVE CARE IN ADVANCED PROSTATE CANCER

Zipporah Ali*

Kenya Hospices and Palliative Care Association (KEHPCA), Kenya

Palliative care II

14h30–17h30

Friday

22 November

2013

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Palliative care in prostate cancer is extremely important and with an aging population is likely to become more so. Metastatic prostate cancer is incurable and causes significant morbidity. The focus of treatment should be on improving quality of life through appropriate oncological treatment and palliative care.

Despite an increase in early detection, a large number of patients will have advanced disease at presentation. Patients should be reviewed by an appropriate specialist and may be offered Hormone therapy, chemotherapy, radiotherapy and/or radioisotopes, but any treatment at this stage is palliative. Palliative care is a multi-professional, holistic approach to managing advanced disease with a limited prognosis. It encompasses controlling symptoms that are physical, psychological, spiritual and social and involves those close to the patient.

Advanced prostate cancer can be debilitating. Symptoms commonly experienced include: bone pain, fatigue and weight loss. Increased dependence and a feeling of losing control can contribute to anxiety and depression. Other symptoms include urinary outflow obstruction, weakness secondary to spinal cord compression, lymphoedema and anaemia. Pain is an extremely common symptom in advanced cancer, present in approximately 70–90% of patients. This can significantly impact on quality of life, interfering with eating, sleeping and interaction with others.

Treatment of pain in cancer can be difficult and complex. Management of all physical symptoms as well as nonphysical problems is important.

Friday
22 November
2013

Zipporah Ali*¹; Robai Gakunga²; Esther Munyoro³

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Background Understanding the needs of patients and carers in different cultural contexts can give valuable insights and comparisons that can inform the planning of cancer services in each context. In developing countries, physical needs often go unmet while in developed countries; nonphysical needs (psychological, social and spiritual) go unmet. Despite physical suffering and sometimes lack of basic food, care, and equipment in Kenya, many patients receive hope and comfort from their religious beliefs and church friends and are able to make sense of their lives in spiritual terms and hence cope with death.

Methods This was a quantitative study conducted on 245 patients with terminal cancer at four public hospitals in Kenya from 4 different geographical and cultural settings and 8 Faith Based Community leaders from the same locations. Spirituality in terms of Meaning, Peace and Faith as well as acceptance of illness by the patient and family were measured and analyzed by Pearson's Correlation (r) against Quality of Life (QoL) using FACIT-Sp Tool -- Quantitative. Total Physical Wellbeing was used to compare and put in context the spiritual parameters which are often covert.

Results Faith based organizations were linked to patients through self-referrals and pastoral hospital and home visits. They in turn referred patients to hospitals, hospices, Chinese herbal clinics and professional counselors. Faith based community leaders recommended training and availability of information on Palliative Care to spiritual leaders.

Conclusion Provision of spiritual care can address many factors influencing pain (to interpret or re-interpret pain perception) that may in turn reduce the physical suffering of the patient. The pastoral carer, given direct contact with the sufferer and his/her family, may become aware of inadequate pain (and other symptoms) management and may be able to redress this situation by bringing it to the attention of the nursing or medical staff.

WORK- SHOP

**Free
communication
of abstracts V**
11h00–13h00
Sunday
24 November
2013

Allegrì, Claudia

PREMIER ÉVALUATION EN COUR DE PROJET PILOTE DE DÉPISTAGE PAR HPV TEST SUR UNE POPULATION NON DÉPISTÉ À MADAGASCAR

Claudia Allegrì*¹; Mario Sideri²; Marie Alice Ratsiraloanirina*¹; Noemi Spolti²;
Violette M Irene Rabodomalala¹; Haingotiana Zoeline Ratsimbazafy¹
¹Akbaraly Foundation, Madagascar; ²IEO partner with Akbaraly Foundation,
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Objectif Confirmer une plus grande efficacité clinique et (logistique) du screening avec le HPV test (HC2) en rapport avec d'autres méthodes et en assurer la faisabilité ainsi qu'établir un protocole de prise en charge de lésions précancéreuses.

Méthode Les femmes d'âge compris entre 30 et 40 ans sont dépistées par HPV test. Quatre centres de santé offrent le prélèvement HPV. Une collecte des données cliniques et anamnestiques est faite au moment de prélèvement. Tous les prélèvements sont acheminés vers un unique laboratoire. Les femmes dépistées HPV positives sont référées à la colposcopie et biopsie dont le résultat détermine le protocole de traitement.

Résultat 833 HPV test on était fait entre octobre 2012 et avril 2013. 199 positifs donc le 22,53%. Dans un des centres ils ont effectué 382 HPV test dont 89 (23,2%) positif. Sur 51 colposcopies on a prélevé 22 biopsies. 22 colposcopie étaient négatif (43%). Entre les biopsies: 13 négatif, 1 cancer invasif, 1 CIN3, 3 CIN2 ,4 CIN1. En générale le 22,7% des biopsies était CIN2+. Cette valeur représente 2,3 % de la population dépistée et 9,8 % des femmes HPV positif.

Discussion Ces résultats préliminaires confirment la validité du dépistage par HPV test et sa valeur prédictif qui est alignée sur ce des autres populations non dépistées. Il reste à discuter la gestion des cas HPV positif mais avec colposcopie ou biopsie négatif.

Allegrì, Claudia
**RESULT OF CYTOLOGY SCREENING IN A NEVER SCREENED
POPULATION: THE SOUTH MADAGASCAR EXPERIENCE**

Sunday
24 November
2013

Claudio Allegrì¹; Mario Sideri¹; Marie Alice Ratsiralovanirina*²;
Luciano Mariani¹; Donatella Romitti³
¹IEO partner with Akbaraly Foundation, Italy; ²Akbaraly Foundation,
Madagascar; ³ONLUS Alfeo Corassori La vita per te partner with
Akbaraly Foundation, Italy

Correspondence Allegrì, Claudia
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Objective To value the impact of cytology screening in southern Madagascar.

Methods/Materials Over 2400 slides were collected in the south region of Madagascar. Pap smears were taken by instructed nurses using both a wooden Ayre's spatula and an endocervical cytobrush. Conventional slides were fixed in alcohol 95% and transferred at the central lab for further processing. At the central lab, slides were manually stained with Papanicolau staining and mounted with coverslip. Cytology readings were done by four local cytotechnicians supervised by fully board certified Italian pathologists, working under a voluntary basis and acting as teachers.

Results Two hundred and forty-one smears (12.7%) had ASC-US or worse; H-SIL, ASC-H, and AGC were reported in a total of 68 cases, 2.8% of the whole population and 28.2% of the abnormal smear results. Cytology report of cancer was reported in 23 cases, 0.9% of the total population and 9.5% of all the abnormal cytology readings.

Conclusions In comparison with national Italian screening data (2), rate of borderline results is about double, data on high grade SIL (AGC, ASC-H and H-SIL) is tenfold higher, and data on cancer (squamous or glandular) is one hundred times higher. These results confirm the high prevalence of severe cervical abnormalities in an unscreened population, and further support the use of HPV testing in unscreened low resources setting, due to the high prevalence of disease.

**POSTER
006**

Friday
22 November
2013

Alleyne-Mike, Kellie

**RETROSPECTIVE REVIEW OF PATIENTS WITH STAGE 1B2 CERVICAL
CANCER TREATED WITH RADICAL RADIATION VERSUS RADICAL
SURGERY AS A PRIMARY MODALITY**

Kellie Alleyne-Mike; Leon van Wijk*; Alistair Hunter
Groote Schuur Hospital, South Africa

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Objective To review the efficacy of treatment modalities used for stage IB2 cervical cancer at Groote Schuur Hospital, Cape Town, South Africa.

Methods This was a retrospective observational study of patients with stage IB2 cervical cancer treated from 1993-2008 with primary radiation therapy (with or without follow-on hysterectomy) or primary surgery (with or without adjuvant radiotherapy). Weekly cisplatin given concurrently with radiotherapy was used since 2003. Patient outcomes and grade 3-4 treatment-related toxicities were recorded.

Results 5-year OS for the 78 patients was 70.8%. Overall survival by treatment modality was 88% for the 25 patients in the surgery group and 62.5% for the 53 patients in the radiotherapy group. There was a difference in the proportion of patients in each group receiving additional therapy: 88% in the primary radiotherapy versus 5.7% in the primary surgery group. Grade 3-4 toxicity was not significantly different between groups ($p=0.4$). Larger tumour size (median ≥ 5 cm) and suboptimal chemotherapy were both shown on univariate analysis to compromise survival.

Conclusion The optimal primary treatment for stage IB2 cervical cancer remains unclear. In this retrospective study, both types of primary treatments were feasible approaches. Primary surgery appears to have better survival outcomes but more patients require "bimodal" treatment than with primary radiotherapy which has cost implications in our resource-constrained environment. Selection bias and inadequate concurrent chemotherapy in 58% of patients receiving primary radiotherapy may account for the difference in survival. A randomised controlled study is needed to determine the optimal treatment for stage IB2 cervical cancer.

POSTER 032

Alves, César

ANGOLA'S CANCER BURDEN AND ITS FIRST RADIOTHERAPY SERVICE AT CLINICA GIRASSOL

Friday
22 November
2013

César Alves*; Paulo Figueiredo*; Joao Oliveira*; Rajesh Sharma;
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Objective To describe the facilities of Angola's first radiotherapy service at Clinica Girassol and explain its impact on country's health care sector.

Methods Cancer is being recognized as a critical public health problem in Africa. Until recently, Angola was one of the African countries which didn't have cancer treatment capabilities. Now, that void has been filled by Clinica Girassol by offering the first oncology service in Angola with the ability to treat cancer with all the three modalities viz. Radiotherapy, Chemotherapy & Surgery Clinica Girassol is equipped with two linear accelerators (one with CT-On-Rails), one High Dose Rate Brachytherapy unit and one CT Machine. Precise Tumour identification is achieved through optimal patient immobilization, suitable imaging modalities (CT & MRI) and advanced visualization and contouring tools. Optimal conformal treatment plans are made using two Treatment Planning Systems for all modern treatment modalities. Treatment delivery accuracy is ensured using EPID, MV-CBCT with Carbon Target & CT-On-Rails. The linear accelerator and all complex treatment modalities go through a rigorous quality assurance program which ensures effective treatment delivery. HDR Brachytherapy uses Co-60 isotope. As prostate cancer is the major cancer among men in Angola, our hospital has added Trans-Rectal Ultra Sound based treatment planning and delivery system.

Results and Conclusions Cancer patients in Angola are now harvesting the benefits of state-of-the-art precision radiotherapy in Clinica Girassol both in the fields of brachytherapy and external beam radiotherapy. This service is now equipped to assume the responsibility to contribute towards fundamental research.

POSTER 033

Friday
22 November
2013

Alves, César

FIRST NUCLEAR MEDICINE DEPARTMENT IN ANGOLA

César Alves*¹; Antónia Muangala*¹; Augusto Cabanga*¹; Ana Vaz¹; Catarina Souto²; Francisco Alves²

¹Clinica Girassol, Angola; ²Medical Consult, Portugal

Correspondence Alves, César

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Objectives We intend to describe the impact and contribution of the opening of the first Nuclear Medicine Department (NMD) in Angola for the improving of health care in this country, as well as its contribution to cancer control in Africa.

Methods The NMD is operating since August 2012 in Clinica Girassol, with a multidisciplinary team of 2 Nuclear Medicine (NM) physicians, 2 physicists, 3 nuclear medicine technologists and a receptionist. The department is equipped with a gamma camera with two heads. A structural and functional radiation protection study was performed before the opening, according to the major international guidelines, for shielding assessment. Patients had to travel abroad to perform this type of examinations. The NMD opening allowed faster results, contributing to early diagnosis and a better prognosis, improving life quality of the patients and cost savings. Being the first NMD in Angola, an effort was made to sensitize the local medical community about the main benefits of NM in the diagnosis and treatment of several diseases.

Results Since the opening of NMD, 150 exams were performed, 47% of them for oncologic purposes. The bone scintigraphy was the most required exam, about 71% in an oncologic context (51% prostate; 25% breast; 13% gastric; 11% others). In addition to ^{99m}Tc, ¹³¹I is being introduced for the treatment and diagnose of thyroid diseases.

Conclusions We pretend to increase the number and type of exams performed in order to improve the quality of life of patients and contribute to a better control of cancer in Angola and in Africa.

POSTER
034

Aminu, Sani

DEVELOPMENT OF AN INTEGRATED CANCER SERVICES AND NETWORK MODEL FOR SUB SAHARAN AFRICA

Sani Aminu*¹; Dahiru Garkuwa²

¹Colchester Hospital University Foundation Trust, United Kingdom; ²South Tyneside District NHS Trust, United Kingdom

Friday
22 November
2013

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Objectives The main objective is to highlight the need for development of an integrated cancer services and network model for countries in sub Saharan Africa.

Methods We searched the literature on epidemiology and burden of cancer in Africa and the socio economic and cultural challenges in cancer care. We then used concept mapping to bring out the model of integrated cancer network and services like an organogram. The literature was searched from monographs of WHO, World Bank, IAEA, AORTIC and relevant websites.

Results We identified the need for countries to establish national expert committees for cancer network and services. The committees could outline policies and guidelines to reorganise human resources, re design facilities and recommend funding needed in health institutions taking socioeconomic & cultural factors in to consideration. It also identifies and recommends resources needed in the community for cancer information and education, counselling and palliative care, rehabilitation & social care as well as end of life care.

Conclusion There is need to develop integrated cancer services and network for countries in sub Saharan Africa through partnership between communities and health institutions. Establishment of national expert committee on cancer is vital for success.

WORK- SHOP

Anderson, Benjamin

GUIDELINES FOR INTERNATIONAL BREAST HEALTH

Benjamin O Anderson*

Fred Hutchinson Cancer Research Center, United States

Breast cancer:
focus on

therapy & care

14h30–17h30

Saturday

23 November

2013

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As the world's most common cancer among women, and the most likely reason that a woman will die of cancer around the globe, breast cancer is an increasingly urgent problem in low- and middle-income countries (LMICs). Of the 17.5 million women around the world will develop breast cancer in the next decade, 9.1 million will be from LMICs. Of the 5 million women will die of the disease, 3.6 million will be from LMICs.

High income countries have made the most progress in improving breast cancer mortality, through early detection by screening combined with timely and effective treatment. The numbers of women who will develop breast cancer, and who will die from this disease, will increase by nearly 50% between the years 2002 and 2020, due solely to aging of current global populations. The number of young lives lost is even more disproportionate. In 2010, breast cancer killed 68,000 women aged 15 to 49 years in developing countries versus 26,000 in developed countries.

Resource constraints in developing health systems require difficult allocation decisions to optimize cancer outcomes. Early detection and comprehensive cancer treatment play synergistic roles in creating improved breast cancer outcomes. New approaches to healthcare system design require that an evidence-based approach to resource prioritization be established.

The Breast Health Global Initiative (BHGI) created resource-stratified guidelines that provide a framework for program development and a template for gap analysis to determine how existing resources can be applied in the most effective way to improve breast cancer outcomes. Comparison between low-income versus middle-income settings can be informative in defining priorities in systematic program development. This resource-stratified approach can be applied to other common cancers in LMICs as part of a strategy to address the global cancer burden.

Andersson, Monique

RISK FACTORS AND SURVIVAL IN HIV INFECTED AND HIV UNINFECTED PATIENTS WITH HEPATOCELLULAR CARCINOMA

Michael Kew¹; Monique Andersson*²; Tongai Maponga*²; Paul Ruff³; Barbara Robertson¹

¹University of Cape Town, South Africa; ²University of Stellenbosch, South Africa; ³University of Witwatersrand, South Africa

Saturday
23 November
2013

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Objectives To describe risk factors and survival associated with hepatocellular carcinoma (HCC) in patients referred to oncology at three tertiary referral hospitals in South Africa.

Methods We obtained ethical approval to conduct a prospective study recruiting patients referred to oncology units at Groote Schuur Hospital, Tygerberg Hospital and Wits Oncology Centre. Demographic, risk factors and survival data was collected. Clinical laboratory results were collated.

Results Fifty two cases were included in the study. Of these 85% (44/52) of cases were male and the median age was 42 years (IQR 33 to 53 years). Diagnosis was made by biopsy in 17 cases. Of the cases recruited 73% of cases (36/49) had evidence of past or current HBV infection. Fifty eight percent (25/43) of cases were born in a rural area. Only 6.6% (2/42) had a family history of HCC. Whilst 35.5% (16/45) of cases were known to have cirrhosis at diagnosis, half of cases (48.8%, 22/45) reported alcohol misuse at some time. Presentation was late with abdominal mass being the most common presentation (79%), followed by ascites (28%). Twenty eight percent (14/50) of cases were HIV infected; all had evidence of HBV infection. These cases had a median current CD4 count of 305 cells/ μ l (IQR 200,753). Survival data will be presented.

Conclusions The high prevalence of HBV, late presentation and poor prognosis of cases with HCC calls for greater efforts to be invested in better understanding the benefits of screening those most at risk of this malignancy.

Andriani, Maria Tiziana

ONCOLOGY FOR AFRICA EXPERIENCE OF THREE CERVICAL AND BREAST CANCER SCREENING CAMPAIGNS IN UGANDA: TOWARDS SUSTAINABILITY?

Sunday
24 November
2013

Maria Tiziana Andriani*¹; Anne Ceribelli²; Atonella Savarese²; Marcello Pozzi²; Martin Nsubuga³; Lawrence Ojom⁴; Francesco Aloï⁵; Calogero Mazzara⁶

¹Oncology for Africa, Italy; ²Regina Elena National Cancer Institute of Rome, Italy; ³St. Raphael of St. Francis Hospital, Nsambya, Kampala, Uganda;

⁴St. Joseph Hospital Kitgum, Uganda; ⁵AIPO, Associazione Italiana Per lo Sviluppo Dei Popoli; ⁶Campus Bio-Medico University in Rome, Italy

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Objective Oncology for Africa is an Italian non-profit organization whose aim is to implement cancer sensitization, prevention and treatment programs in Ugandan women affected by cervical and breast tumours. Aim of the study is to evaluate the effectiveness of Oncology for Africa screening activities and to verify if this model of screening campaigns can be replicate directly by Ugandan medical and nursing staff without Italian medical doctors support on site.

Methods three screening campaigns were held respectively at Nsambya Hospital Kampala (January 2011) and at St. Joseph Hospital Kitgum (January 2012–November 2012). One month before the screening phase, sensitization activities were focused on the female population through radio, brochure and midwives speaking in villages and churches. Italian medical staff was not involved in this phase. The second phase was dedicated to gynaecological and breast investigations. During the first and the second screening campaign, an Italian gynaecologist was called to train two Ugandan medical doctors and six midwives on making VIA and pap smear tests, biopsies and to treat precancerous lesions. An Italian pathologist was also there to train the Ugandan Lab technicians on the cytological and histological examinations reading. For the third campaign the Hospital didn't need any Italian medical doctors because the local staff was already trained and able to conduct the screening campaign by themselves.

Results 4.752 women were screened during the three campaigns (from 49 to 188 pts./die). Nsambya and St. Joseph Hospital have now very skilled medical and nursing staff.

Conclusions A fourth screening campaign will be held in November 2013 and it will be managed autonomously by the Hospital staff. Only financial support will be required to Oncology for Africa. This further campaign demonstrates the effectiveness of the training "in loco" as an instrument of reproducibility and sustainability in Oncology for Africa's projects.

POSTER 037

Saturday
23 November
2013

Anley, Mesfin

REDUCING ONCOLOGY PATIENT TREATMENT DELAYS AND IMPROVING SERVICE DELIVERY AT TIKUR ANBESSA SPECIALIZED HOSPITAL (TASH), ADDIS ABABA, ETHIOPIA

Mesfin Anley*

Tikur Anbessa Specialized Hospital, Ethiopia

Correspondence Anley, Mesfin

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Objective To improve service delivery and reduce patient delays for radiotherapy, chemotherapy and blood transfusions.

Background Tikur Anbessa Specialized Hospital (TASH) Radiotherapy Center (RTC), located in Addis Ababa, is the only cancer center for Ethiopia's population of 90 million. Patients are referred from nine regions and two administrative cities; and significant numbers are transferred from TASH to the RTC for treatment. Additionally, some patients come from neighboring countries, like Djibouti and Somalia. The number of patients seen is increasing about 14% a year. In 2012 the wait time for a new patient appointment was up to 8 months; for radiotherapy (RT) 6 months; for chemotherapy (CT) 5 months. These delays contribute to poor patient outcomes.

Methods We determined the wait time for various services for 2012, did a root cause analysis, and made improvements in staffing, training, and facilities based on our findings. Reasons for long waits included insufficient numbers of physicians and nurses, and inadequate facilities. To address these issues we converted a conference room into a day hospital with 5 chairs and 5 beds for chemotherapy administration and blood transfusions; we divided a single large exam room into 2; we initiated a medical oncology residency program; completed repairs to a radiotherapy machine; and trained an additional radiotherapist.

Results We increased the number of patients seen and treated from the 4th quarter of 2012 to the 1st quarter of 2013 as follows. For CT from 1,035 to 1,269; for RT from 2,760 to 3,294 and reduced wait times approximately 50% for each service.

Conclusion By systematically analyzing the cause and working to address improvements to facilities and staffing, we were able to significantly reduce wait time, and increase number of patients treated. This will hopefully lead to improved patient outcomes.

WORK- SHOP

Free
communication
of abstracts I
11h00–13h00
Friday
22 November
2013

Ashktorab, Hassan

NOVEL GENES MUTATION AND METHYLATION TARGETS IN COLON CANCER FROM AFRICAN AMERICANS USING WHOLE EXOME SEQUENCING

Hassan Ashktorab*¹; Hamed Rahi²; Adeyinka Laiyemo²;
Shelly McDonald-Pinkett²; Hassan Brim¹

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Background Several driver mutations and methylated genes have been discovered in colorectal cancer (CRC) progression. This includes KRAS, APC and BRAF that have practical significant therapeutic and prognostic values. Sequencing technologies have advanced and now provide a tool for high throughput discovery of novel driver mutations. In addition, the sequencing of sodium bisulfite modified DNA coupled with enrichment for high GC areas allow whole genome methylation analysis. Here, we performed whole exome sequencing (WES) and whole genome methylation analysis to elucidate the involvement of novel candidate genes in the path to colon carcinogenesis.

Patients and methods WES was carried out on genomic DNA extracted from 8 normal–tumor pairs of frozen biopsies from African American patients with CRC. WES and Reduced Representation Bisulfite Sequencing (RRBS) were performed. Pyrosequencing and Sanger sequencing were used for the validation of methylation and single nucleotide variants (SNV) respectively. For WES, base call quality recalibration, realignment around indels, SNV calling and variant call recalibration were carried out using Genome Analysis Tool Kit. Variants were then annotated using Annovar. Forty-four paired colorectal tumors and normal adjacent colonic tissue samples were used for validation.

Results WES uncovered somatic mutations alterations in many genes that are known be mutated in CRC including APC, BRAF, KRAS, Notch1, PIK3C2A, and NDRG4. We discovered a number of Novel SNVs in EID3, RGS3, HNRNPF, and GNAS in tumor samples. One GNAS missense mutation was discovered among KRAS mutated tumors. The RRBS analysis and validation revealed the methylation status of 355 CpG sites located in 16 gene promoter regions associated with CpG islands. Fifty-nine CpG sites located on CpG islands of ATXN7L1 (2), BMP3 (7), EID3 (15), GAS7 (1), GPR75 (24), NDRG4 (2), Sept9 (6), and TNFAIP2 (1), were significantly methylated in tumor vs. normal ($p < 0.05$). Most of these genes showed significant hypermethylation in tumors compared to normal mucosa. According to gene ontology analysis, GAS7 methylation is associated with the cadherin signalling (WNT) pathway. In addition, the tumor with the GNAS mutation was significantly hypomethylated ($P < 0.05$) in the CpG sites of GNAS promoter. Ingenuity pathway analysis (IPA) showed that GNAS was involved in CRC metastasis signalling via APC, BRAF, GSK3A, KRAS, MLH1, MLH2, MLH3, Notch family, and PIK3C family.

Conclusions This work provides insight into the intricacies between genetic and epigenetic processes in the path to cancer. Such is the case for GAS7, a novel gene, that was hypermethylated in our validation set and for which functional analysis is underway.

**POSTER
039**

Thursday
21 November
2013

Asirwa, Fredrick

**ESTABLISHING AND IMPLEMENTING AN ELECTRONIC ONCOLOGY
POINT-OF-CARE (POC) RECORD SYSTEM FOR CANCER CARE AND
CANCER SCREENING SERVICES IN WESTERN KENYA**

Fredrick Asirwa*

Academic Model Providing Access to Health Care (AMPATH) Oncology, Kenya

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Cancer data in sub-Saharan Africa is often sparse, incomplete or inaccessible. Provision of optimal cancer care requires accurate, complete and accessible data on individual patients, pathological diagnosis, stage of their disease, treatments received and compliance to clinic visits. A major obstacle to cancer care in most developing countries is lack of electronic cancer record systems to collect at POC, manage, and disseminate clinical data.

In 2012, we started the process of creating an electronic Oncology POC system leveraging the already existing AMPATH HIV Electronic system. Borne out of our growing cancer population with current monthly visits of 1000 persons; 26,000 women screened for cervical cancer so far and more than 18,000 breast cancer screenings done. We outsourced the computer programming and IT support from a group of Kenyan medical programmers. Funding was sourced from various grants, whose Principle Investigator, is the author. The objective was to create an electronic oncology system that is easy to implement, comprehensive, scalable with decision supports and reminders. So far, Phase I of the program is complete with 10" tablet data entry at the POC for breast and cervical cancer screening programs. Training and piloting for the electronic screening program has been completed and Open Medical Record System (MRS) utilized for data storage and retrieval. The program is fully POC entry by health care professionals ensuring accuracy and increased utilization of the data collected. Laptop supported POC data entries for all cancer encounters will be complete in 2014.

In addition to POC entries, key outputs include patient summaries, diagnostic and decision support, care reminders, and reports for program management, operating ancillary services (e.g., tracing cancer patients who are Lost to Follow-up), generation of outcomes data, strategic planning (e.g., hiring cancer care providers and staff), for cancer registries, research and donors.

POSTER 038

Asirwa, Fredrick

ESTABLISHING A MULTIPLE MYELOMA PROGRAM AT A TERTIARY REFERRAL HOSPITAL IN WESTERN KENYA

Sunday
24 November
2013

Fredrick Asirwa*

Academic Model Providing Access to Health Care (AMPATH) Oncology, Kenya

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Introduction Multiple Myeloma care in developing countries is impeded by under-recognition, inadequacy of diagnostic support, treatment options and follow-up care.

Methods We developed a Multiple Myeloma treatment protocol that utilized select appropriate tests which include: complete blood count, bone marrow aspirate, calcium, creatinine, serum total protein and albumin. Plain X-rays or skeletal survey done depending on presenting complains or clinical evaluation. The treatment comprises of Melphalan and Prednisone (MP) or Thalidomide Cyclophosphamide and Dexamethasone (TCD) and in 2nd or third line Lenalidomide and low-dose dexamethasone (Lendex). Thalidomide and/or Lenalidomide is administered under the Celgene's Risk Management Program (RMP) modified for Kenya.

Results Forty health care workers have been trained on Multiple Myeloma through a series of lectures and patient clinics. Development of an eight member Multiple Myeloma team at the tertiary center with a hematologist-oncologist, a physician, a medical officer, a physician assistant, two nurses, an oncology pharmacist and a pharmacovigilance pharmacist. Development of a multiple Myeloma website for CME has been completed. We have 42 active patients being seen in our clinic with Multiple Myeloma under the Eldoret Multiple Myeloma Protocol. 12 month follow up results will be due in March 2014. The role of SPEP and UPEP in decision making or changing therapy is under investigation.

Conclusion Multiple Myeloma care can be safely and effectively delivered in resource-limited settings with emphasis on training of health care workers, strict pharmacovigilance and patient follow-up with prompt recognition and management of side effects and disease progression. In the absence of Bone Marrow transplants more clinical trials and novel agents should be availed in our settings to evaluate their impact on overall survival.

WORK- SHOP

Free
communication
of abstracts IV
11h00–13h00
Friday
22 November
2013

Asirwa, Fredrick

LOST-TO-FOLLOW UP (LTFU) AMONGST CANCER PATIENTS SEEN AT AN OUTPATIENT CANCER CLINIC IN A PUBLIC TERTIARY HOSPITAL IN WESTERN KENYA

Fredrick Asirwa*

Academic Model Providing Access to Health Care (AMPATH) Oncology, Kenya

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Introduction The sustained and appropriate use of chemotherapeutic agents for treatment and palliation of cancer at AMPATH Oncology since 2010 has substantially improved the prognosis of cancer patients, majority living in Western Kenya. However, Lost to follow-up (LTFU) is a major concern threatening favorable outcomes.

Objective To determine the causes of Lost to Follow-up amongst patients attending out-patient cancer clinic at Moi Teaching and Referral Hospital (MTRH)/AMPATH Oncology and suggest ways of mitigating them.

Methods Chart review was done for all the patients attending the outpatient cancer clinic who missed at least 2 consecutive clinic appointments between July to Dec 2012. Information obtained on patients included age, sex, whether they were on or off chemotherapy, cancer type, stage of the cancer, date of last contact with the clinic, date of death and, when available, last noted performance status. Eighteen sickle cell disease patients attending this clinic were included. The last known phone contacts on file were used to track them and information obtained over phone from either the patient or caregiver on reasons for LTFU.

Results A total of 140 patients were identified out of 2,162 patients over the 6 months of review. The median age was 44. 84 (60%) were female and 56 (40%) male. Cancer of the breast (15%), cervix (11%), Non-Hodgkin Lymphoma (7%) and Kaposi Sarcoma (7%) were the commonest. All the cancer patients had advanced disease and 29 (21%) were dead. Most LTFU patients 81 (58%) patients less than 5 clinic visits prior to LTFU. Reasons given included; Cost of treatment, lack of transportation, traditional medicine, treatment-related side effects and referral for radiation amongst others. Financial aid, supportive care and flexibility of clinic return dates were some of the suggestions made.

Conclusions Cancer care requires coordinated, well organised and optimal care delivery. LTFU must address to ensure compliance and improve outcomes.

POSTER 040

Asuzu, Chioma

PSYCHOSOCIAL DETERMINANTS OF QUALITY OF LIFE OF CAREGIVERS OF CANCER PATIENTS ATTENDING RADIOTHERAPY CLINIC, UNIVERSITY COLLEGE HOSPITAL, IBADAN

Sunday
24 November
2013

Chioma Asuzu*; Igbeneghu Christiana; Joyce Tondo
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Objective This is a descriptive study aimed at identifying the psychosocial determinants of the quality of life of caregivers of cancer patients attending the Radiotherapy Clinic, UCH, Ibadan.

Methods One hundred and fifty-one consequently presenting caregivers participated in the study. Six instruments namely Cancer anxiety scale with alpha co-efficient of 0.55, Caregivers stress scale with co-efficient of 0.78, Caregivers depression scale with co-efficient of 0.65, Multidimensional scale of perceived social support 0-87 and quality of life, enjoyment and satisfaction scale 0.88 were used to collect data from the caregivers after revalidation of the instruments . Data collected was analysed using multiple regression.

Results The respondents aged between 14–72, with the mean age of 33.65. The male respondents were 76 (50–3%) and female respondents were 75 (49.7%). The caregivers ranged between brothers, 24 (15.9%) sons 21 (13.9%), daughters 23 (15.2%) and sisters 22 (14.9%) and the least is the brother-in law 1 (.7%) of the cancer patients. The independent variables stress, anxiety, depression, perceived social support, age, marital status, educational qualification and family type jointly determined the quality of caregivers of cancer patients ($p < 0.05$). It also revealed that Depression has the highest relative contribution to the determinant of quality of life with the beta value of .262; $df = 128$; $p < 0.05$. The result revealed that there was a significant inverse relationship between the caregivers quality of life and caregivers experience of stress ($p < 0.05$) and depression ($p < 0.01$).

Conclusions The finding of this study has revealed the challenges faced by the caregivers of the cancer patients and their need to be given support and information by the health care professionals. It was recommended that caregivers should be given considerable attention and social support by immediate, extended and significant others in order to enha ...

ABSTRACT INCOMPLETE / EXCEEDS LIMIT

Asuzu, Chioma

SOCIO-EPIDEMIOLOGICAL STUDY OF CANCER PATIENTS AND THEIR TRADITIONAL AND ALTERNATIVE HEALERS AT THE UNIVERSITY OF NIGERIA TEACHING HOSPITAL, ENUGU, IN EASTERN NIGERIA

Saturday
23 November
2013

Chioma Asuzu*¹; Jimmie Holland²; Theresa Elumelu-kopoluyi¹; Michael Asuzu¹; OB Campbell¹; Emmanuel Ezeome³
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The first line of treatment for some patients in Africa is provided by traditional or other alternative healers than orthodox medical services, which often delays access to evidence-based medical treatments.

Objectives Our objective is to assess the use and impact of traditional and alternative medical treatment by cancer patients in the University of Nigeria Teaching Hospital (UNTH), Enugu, Nigeria, its implications and to explore possibilities for greater and better understanding and cooperation between these practitioners and their health systems with our scientific medicine.

Method This is a descriptive cross-sectional study of referred cancer patients at the Oncology centre, UNTH, as well as the traditional and alternative health care providers that they may have patronized before coming to the UNTH, including focus group discussions with the latter. Data was collected from newly diagnosed cancer patients at the Oncology centre, UNTH, Enugu with a validated interviewer administered semi-structured questionnaire. 306 patients have been interviewed to date. Data analysis was done by SPSS.

Result One hundred and twelve (112 or 36.6%) of the 306 participants have visited traditional or alternative healers before coming to the UNTH. Eighteen (18 or 16.07%) of the 112 would be willing to take the researchers to traditional healers, 17 (15.18.0%) are unsure while 77 (68.75.0%) said that they will not take the researchers to their traditional healers. Ninety-four 94 (30.7%) were men while 212(69.3%) were female respondents. There was a significant difference in the duration of illness at presentation in clinic between those who have reported to traditional/alternative healers and those that have not ($p < 0.01$).

Conclusion This study is on course and promises to open up some avenues for the improvement of our understanding and better cooperation with alternative healers and our patients for earlier presentation and management outcomes of these clients.

WORK- SHOP

AORTIC-IPOS
Academy
09h00–10h30
Wednesday
20 November
2013

Asuzu, Chioma **SPIRITUAL FACTORS IN DELAY**

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Spiritual factors would hardly be the sole reason for delayed presentation by cancer patients for orthodox medical care in their illness. Even in Africa and particularly the rural areas where spiritual inclinations are strongest, it would still be most likely that spiritual reasons would only be part of the issues that resulted in delay in seeking proper attention for their cancer illness.

In our Nigerian setting, ignorance of the signs and symptoms of cancer, long distance from the physical facility where such care is available, experience of bad prognosis from previous users of the services (because of similar, but to them unknown, late presentations), poor attitudes of the health care workers, high expense of the cost of care and basic poverty levels of the patients themselves, all play together to encourage the patient to recourse to their belief in God for a miraculous cure. Inadequate hospital chaplaincy services of an inter-faith nature have also been cited by oncology patients as part of the reason they do not readily come to our health facilities. However, as observed already, it would be difficult to find any client whose inability to come early for care is exclusively of spiritual reasons. The intricate ways by which religious values play into all the other factors and how to overcome these obstacles will be explored in this paper and solutions proffered.

WORK- SHOP

AORTIC-IPOS
Academy
11h00–13h00
Wednesday
20 November
2013

Asuzu, Chioma

PSYCHOSOCIAL SERVICES AND TRAINING MODELS IN AFRICA

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Cancer care is incomplete in the absence of psychosocial management. All cancer patients ought to have their inherent psychosocial needs met as part of a comprehensive health care. It is essential therefore for each cancer service provider to make culturally appropriate and economically affordable psychosocial services within the reach of all cancer patients. Models of psychosocial services in oncology settings have been developed in the advanced parts of the western world.

Studies of modalities for patient care worldwide have generally indicated that patients generally wish to be informed and involved in the decision making for their care, as much as is reasonable to do. Patients thus involved achieve better patient satisfaction in their care. Effective communication allows patients to learn and understand enough of their diagnosis and treatment as to be able to communicate well and participate in their health care. However, in many of the developing world, where illiteracy may be a problem, knowing what to communicate and how to communicate it may reduce the dangers of poor communication.

An evolving multi-staged model for Ibadan, Nigeria is presented in this paper. Multidisciplinary, affordable and accessible psychosocial services as part of a comprehensive cancer care for patients and their families could become the rule and not an exception in oncology centres in Africa.

Saturday
23 November
2013

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Background Colonic tumours are the third most common tumours in the Nigerian cancer registry. Tumours involving the distal rectum and anus are an increasingly significant proportion of all colorectal and anal malignancies in Nigeria. Patients frequently present with advanced disease. Abdomino-Perineal resection (APR), is thus an essential modality of treatment alongside chemo-radiation. The aim of this study was to review the surgical outcomes of APR done for low rectal and anal malignancies in a resource poor setting in sub-Saharan Africa.

Materials and Methods Data was collected retrospectively from the charts of all patients who had APR at the University College Hospital, Ibadan between August 2007 and August 2012. This included demographic information and details of clinical presentation, diagnostic process, neo-adjuvant chemo-radiation, operative details, adjuvant treatments, post-operative course, follow-up and survival patterns following APR. Analysis was done using SPSS 17.0 and significance was taken as p value less than 0.05.

Result Over the 5-year period, 49 patients were treated with an APR in our institution. The indications for APR were primary rectal carcinoma (n=36 pts, 72%) and anal carcinoma (n=13 pts, 28%). The age ranged from 19–77 years (median=54 years) and the majority of the patients were 40 years of age or older; 53.1% (26 patients) were male. The duration of symptoms ranged from 8–104 weeks (median=24 weeks) and a quarter of the patients presented as emergency with large bowel obstruction that necessitated initial faecal diversion. Bleeding per rectum (71.4%), weight loss (38.7%) and Tenesmus (24.4%) were the predominant complaints. All the patients were staged AJCC 2A-3C (Duke stage-C or D) at presentation and 66% (33 patients) were incontinent of faeces and had sphincter involvement. A total of 25 patients (52%) had at least one post-operative complication. Most patients (n=45 pts, 90%) were admitted for 15 to 20 days. There was only one mortality during postoperative period. Surgery was done with palliative intent in all the patients and presently 8 patients (16%) are dead of disease; 23 (47%) are alive with disease and 18 patients (37%) have no evidence of disease. Neo-adjuvant (n=13pts, 26.5%) and adjuvant (n=40, 81.6%) treatment modalities was not done in all the patients; but was found to be statistically significant (P=0.041), so also positive lymph nodal involvement was statistically significant (P=0.038) in determining liver metastasis. The duration of symptoms, stage of disease and intra operative blood loss were all found not to significantly affect the outcome in terms of local recurrence and survival.

Conclusions APR will remain a major armamentarium in the management of low rectal and anal cancers in low resource settings where there is paucity of affordable neo-adjuvant chemo-radiation modalities and sphincter saving devices.

Saturday
23 November
2013

Abdelhafid Ayoujil¹; Hinde Hami*¹; Faouzi Habib²; Abdelmajid Soulaymani¹; Abdelrhani Mokhtari¹; Ali Quyou¹

¹Laboratory of Genetics and Biometry, Faculty of Sciences, Ibn Tofail University, Kenitra, Morocco; ²Al Azhar Oncology Center, Rabat, Morocco

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Objective Breast cancer is the most common cancer in women worldwide. It is also the principle cause of death from cancer among women. The aim of this study is to determine the profile of patients treated with breast-conserving surgery (BCS) for breast cancer in Morocco.

Methods A retrospective study of breast cancer cases diagnosed and treated with BCS, between 1994 and 2002, at Al Azhar Oncology Center in Rabat, was conducted.

Results During the period of study, 347 women had breast-conserving surgery for breast cancer. Of these, 38% were post-menopausal. The average age at diagnosis was 46 years. Female breast cancer was strongly related to age, 90.5% of cases were diagnosed in women aged 35 years and over and 74% were diagnosed in the 35-54 age group. Among all detected cases, 37.2% were detected at stage I, 45.5% at stage II, 15.1% at stage III and 2.1% at stage IV. Approximately 10% of breast cancer cases were diagnosed with metastatic disease and 8.1% died during the study period.

Conclusions Breast cancer continues to be a major public health problem. More research is needed to address the decision making of individual patients and their physicians regarding type of surgery.

WORK- SHOP

Ayo-Yusuf, Olalekan

CANCER RISKS OF NON-CIGARETTE TOBACCO PRODUCTS: A SCIENTIFIC BASIS FOR REGULATION

Tobacco-related cancers

11h00–13h00

Saturday

23 November

2013

Olalekan A Ayo-Yusuf*
University of Pretoria, South Africa

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It remains unclear how several published reports on the constituents of non-cigarette tobacco products can be used in providing scientific basis for product regulation as envisaged in Article 9 and 10 of the WHO Framework Convention on Tobacco Control (FCTC).

Guided by the cancer risk assessment methodology developed by the US Environmental Protection Agency (USEPA), this presentation aim to demonstrate how regulators can evaluate cancer risk potential of non-cigarette products as determined by the benchmark of 'acceptable' risk of $<10E-6$. The results obtained using smokeless tobacco products as an example, provide a guide for prioritising chemical hazards in non-cigarette tobacco products in terms of the actions required to reduce the potential cancer risk from the use of these products.

This presentation concludes that several of the popular non-cigarette tobacco products on the market carry an 'unacceptable' risk for cancer and therefore require regulatory actions as a matter of priority.

Babb, Chantal

EFFECTS OF SMOKELESS TOBACCO (SNUFF) ON CANCER IN BLACK SOUTH AFRICANS

CL Babb*¹; MI Urban²; S Egger³; M Weber³; OA Ayo-Yusuf⁴; F Sitas³

¹MRC/NHLS Cancer Epidemiology Research Group (CERG), National Health Laboratory Services, South Africa; ²CERG and Faculty of Health Sciences, University of the Witwatersrand, South Africa; ³Cancer Epidemiology Research Unit, The Cancer Council NSW, Australia; ⁴University of Pretoria, South Africa

Saturday
23 November
2013

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Objective Tighter smoking regulations implemented globally have resulted in increased use of smokeless tobacco (SLT) products. The risk of developing cancer from using these is still unclear. We determined the risk for several cancers among snuff users in Johannesburg, South Africa.

Methods The Johannesburg Cancer Case Control study has recruited 14 321 adult (18–75 years) black African, newly diagnosed patients with cancer from 1995 to 2008. Cases were patients with smoking related cancers and with cancers showing some evidence of an association with SLT use namely: upper aero digestive (n=871), female genital (n=2498), urinary (n=174) and myeloid leukaemia (n=149). Controls (n=6187) were patients with cancers that have no known relationship to SLT/tobacco. Risks of snuff use and cancer were estimated by multivariate odds ratios adjusted for age, gender, education, alcohol use (ever/never), place of residence (urban versus rural), HIV, recruitment time and number of sexual partners. Analysis was restricted to non-smokers (n=8416, 2141 snuff users).

Results Over 90% of snuff users were female and 27% of females used snuff. We found an increased risk with increasing snuff exposure among people with nasal cavity cancer (n=29) and myeloid leukaemia (n=149), with an increase of 11% and 6% per gram per day of use, respectively (p trend<0.05).

Conclusions This is the largest study looking at nasal snuff use and risk of cancer in Africa. Nasal snuff may increase risk for specific cancers. Further confirmatory work is needed.

WORK- SHOP

Bamgbose, Faosat

OUR VOICES: MODEL ADVOCACY CASE STUDIES IN AFRICA

Faosat Bamgbose*

Breast Cancer Awareness Initiative, Nigeria

**Cancer
advocacy**

08h30–17h30

Thursday

21 November

2013

Correspondence Bamgbose, Faosat

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Perhaps the greatest concern and challenge facing cancer patients in the Sub-Saharan Africa is early diagnosis. Compounding these challenges is coming to terms with afflictions, getting support and being able to get treatment where it is available. These challenges are mitigated by fast tracking advocacy and information dissemination that often times evoke situations where first time patient, long term sufferers and survivors can serve as role models or voices to engender robust advocacy and strategies for the prevention and management of all forms of cancers.

Saturday
23 November
2013

Begoihn, Matthias

OVERALL SURVIVAL AND ITS PREDICTORS OF 1059 PATIENTS WITH CERVICAL CANCER AT TIKUR ANBESSA HOSPITAL ADDIS ABABA, ETHIOPIA

Matthias Begoihn*¹; Ulrike Moelle¹; Eva Johanna Kantelhardt*¹; Gebrehiwot Yirgu²; Abreha Aynalem²; Tigeneh Wondemagegnehu*²
¹Martin Luther University, Germany; ²Addis Ababa University, Ethiopia

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Objective Developing countries are particularly affected by cervical cancer (CC) with 255.000 deaths occurring yearly. There is little information on survival of these patients. We evaluated 4 years of consecutive patients presenting at the only hospital in Ethiopia offering external beam radiotherapy.

Methods All patients with CC presenting at the hospital from 9/2008–8/2012 who received radiotherapy and/or surgery were included. Patients were treated according to locally adapted guidelines and the resources available (Brachytherapy not available). Follow-up visits were recommended. Patient data was obtained from clinical records. Patients were contacted by telephone for information on vital status.

Results Of 2300 patients with CC presenting at the hospital, 1059 patients with standardized treatment were entered into the database. Within the study, with a mean follow-up of 15 months 218 patients died. Mean age was 49 years. Menopausal status, children, place of residency, comorbidities and FIGO classification at presentation will be presented. The two-year overall survival-probabilities of the total cohort was 73%. Assuming worst-case scenario (all censored patients died at date of census) the two-year overall survival-probabilities of the total cohort came down to 23%.

Conclusion This study gives a thorough four year overview of patients with CC receiving standardized oncologic care in the only oncologic facility in Ethiopia. Large numbers of patients with advanced disease reflect the magnitude of the health problem. More attention to prevention, early detection, different therapeutic modalities and palliative care of CC within all levels of the health care system is needed.

Benneh-Akwasi Kuma, Amma
UNUSUAL PRESENTATIONS OF CHRONIC MYELOID LEUKAEMIA

Amma Benneh-Akwasi Kuma*¹; Kenneth Baidoo¹; James Mensah²;
Edeghonghon Olayemi²; David Adjei³
¹Korle-Bu Teaching Hospital, Ghana; ²University of Ghana Medical School,
Ghana; ³School of Allied Health Sciences, Ghana

Thursday
21 November
2013

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Objective Chronic myeloid leukaemia (CML) is a clonal disease that results from an acquired genetic change in a pluripotential haemopoietic stem cell. It is characterized by the presence of the Philadelphia chromosome. Patients with CML usually present with splenomegaly, symptoms of anaemia and thrombocytopenia. There are also others who are asymptomatic on presentation.

Some patients may however present with rare presentations such as hearing loss and priapism. These conditions can have long lasting effects on the quality of life of the patient. It is therefore very important to bring to the fore the existence of these rare presentations so as to promote early recognition and prompt management.

Methods A patient medical record review of 120 CML patients diagnosed at our centre between October 2007 and June 2013 was done. The data was analysed using Microsoft Excel.

Results The number of patients who presented with hearing loss and priapism were 8 and 2 respectively. Thus 8.3% of the patients presented with unusual presentations at our centre.

Conclusion These presentations though uncommon exist and can result in serious irreversible damage that can affect the patient for life. Early recognition and prompt management of these presentations can go a long way to improve the well-being these patients.

Friday
22 November
2013

Esson Mapoko Berthe Sabine*¹; Mouelle Sone Albert*²; Ndom Paul*³;
Mbassi Dina Bell Esther⁴; Atenguena Okobalembe Etienne⁵; Yomi Jean⁵;
Essomba Biwole Martin⁴

¹Hopital Regional De Ngaoundere/Ministere De La Sante Publique, Cameroon;

²Hopital General de Doula/Ministere De La Sante Publique, Cameroon;

³Hopital General de Yaounde/Ministere De La Sante Publique, Cameroon;

⁴Hopital General de Doula, Cameroon; ⁵Hopital General de Yaounde, Cameroon

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Objectif La radiothérapie adjuvante est l'une des modalités thérapeutiques rentrant dans l'algorithme de traitement des cancers du sein non métastatiques. Au Cameroun, les données relatives au profil évolutif des patientes atteintes de cancer du sein après radiothérapie datent de 1996, d'où notre désir de décrire le devenir des patientes atteintes de carcinomes mammaires invasifs après radiothérapie adjuvante.

Méthodes Il s'est agi d'une étude rétrospective menée de Janvier 2006 à Décembre 2010 dans les services de radiothérapie des hôpitaux généraux de Yaoundé et Douala, portant sur 186 patientes atteintes de carcinome mammaire invasif, non métastatique, après radiothérapie adjuvante. Elle consistait à déterminer leur devenir en terme de survie sans rechute locorégionale, de survie globale et des facteurs influençant ces survies. Les temps de participation ont été obtenus à partir des dates d'origine et de point, servant à réaliser les courbes de survie selon la méthode de Kaplan-Meier. L'analyse des données a été faite à l'aide des logiciels SPSS 16.0 et Epi Info 3.5.3.

Résultats L'âge médian était de 46 ans avec des extrêmes de 22 et 80 ans. La survie sans rechute locorégionale a été estimée à 82,5% à 5 ans, avec une moyenne de $51,85\% \pm 1,67$ (IC à 95%: 48,58–55,14). Les taux de rechute locorégionale et à distance étaient respectivement de 9,1% et 18,8%. La survie globale était de 62% à 5 ans, avec une moyenne de $47,48\% \pm 1,97$ (IC à 95%: 43,62–51,34). La chirurgie conservatrice a été identifiée comme facteur de mauvais pronostic pour la survie sans rechute locorégionale ($p = 0,042$); tandis que le stade tardif et la survenue d'une rechute locorégionale étaient des facteurs de mauvais pronostic pour la survie globale (avec respectivement $p = 0,009$ et $p = 0,047$).

Conclusion La radiothérapie adjuvante pratiquée au Cameroun pour le traitement des carcinomes mammaires invasifs améliore le pronostic locorégional et de ce fait, la survie globale.

WORK- SHOP

HPV cervical
cancer network
in Francophone
Africa

14h30–17h30

Thursday

21 November

Berthet, Nicolas

RESEQUENCING MICROARRAY TECHNOLOGY FOR GENOTYPING HUMAN PAPILLOMAVIRUS FROM CERVICAL SMEARS

Nicolas Berthet*¹; Michael Falguières²; Claudia Filippone²; Chloé Bertolus³; Christine Bole-Feysot⁴; Sylvain Brisse²; Antoine Gessain²; Isabelle Heard²; Michel Favre²

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Background Human papillomaviruses (HPV) are divided into several genera. Viruses of the alpha genus have a mucoso cutaneous tropism and are at the origin of the most frequent sexually transmitted infections leading to condylomas and anogenital intra-epithelial neoplasia that may progress to invasive carcinomas. The detection of 40 different genotypes belonging to this genus represents an important objective in public health. Our aim was to evaluate the performance of a re-sequencing microarray (RMA) for genotyping HPV of public health importance in cervical smears.

Methodology/Main findings We first used homonymous HPV sequences and reconstructed ancestral HPV sequences for the identification of different concentrations of cloned genotypes. In the following experiments, this approach was successfully applied in a set of 34 cervical smears in comparison with the reference commercial kit Papillocheck (Greiner BioOne). Samples were HPV negative or contained one or several HPV (multi infected samples). Data obtained showed 23/34 (68%) concordant and 11/34 (32%) compatible results between these two methods.

Conclusions/Significance Our work demonstrate the diagnostic potential of the RMA technology for the genotyping of HPV, pointing out its interest for epidemiological studies dealing with the analysis of the prevalence and distribution of HPV genotypes in anogenital lesions observed in different populations.

**POSTER
049**

Bhatasara, Taurai

**AN ASSESSMENT OF CANCER KNOWLEDGE AND AWARENESS
AMONG THE PUBLIC**

Sunday
24 November
2013

Taurai Bhatasara*
Cancer Awareness Ambassadors, Zimbabwe

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Objective To assess the knowledge levels and awareness among the public in order to identify the gaps towards cancer treatment.

Methods Focus Group Discussions, Questionnaires and In-depth Interviews

Results The rural population has very little knowledge about cancer. People cannot separate between reproductive health cancers and Sexually Transmitted Infections (STI). There is no proper awareness and advocacy strategy in place. There is huge gap between awareness and treatment of Cancer. The current statistics of cancer shows that there are no much awareness campaigns. Urban population has access to information but failing to comprehend. There still exist a lot of myths and misconceptions about cancer due to lack of public education. Clinics and hospitals are not doing enough to educate the public. There is no standardised material being used for public education about cancer.

Conclusions Government is not doing enough to educate the public about the dangers of cancer. There are no awareness and advocacy campaigns directed towards indigenous groups to stop harmful reproductive health practices that are leading to an increase in cervical cancers amongst women. Cancer has remained in the curative category amongst the public health practitioners making it difficult to manage as there are no preventative measures in place. Print and Electronic media is not doing anything to educate the public about cancer.

WORK- SHOP

Blecher, Evan

FORECASTING TOBACCO USE IN SUB-SAHARAN AFRICA

Evan Blecher*

American Cancer Society, United States

Tobacco-related cancers

11h00–13h00

Saturday

23 November

2013

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Using long term population forecasts and medium term forecasts of smoking prevalence we project the aggregate number of smokers in sub-Saharan Africa over the next century. We show that while the number of smokers is likely to peak in all other regions of the world within 40 years, the number of smokers in Africa will likely grow disproportionately. We draw a distinction between intervention and prevention focused tobacco control policies and show that while other regions of the world need to focus more on intervention policies now, prevention policies are significantly more important in Africa. Additionally, we show the impact of contemporary tobacco control policies including tax increases, advertising bans and smoke-free policies on the number of smokers in Africa.

WORK- SHOP

**Cancer and
sexual health**
11h00–13h00
Thursday
21 November
2013

Boa, Ros

IMPACT OF GYNAECOLOGICAL CANCER ON SEXUALITY IN WOMEN

Ros Boa*

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There is an increased prevalence of women diagnosed with cancer and with earlier detection and improved treatments, an increase in five year survival rates. Many more people are living with cancer, with a greater focus being placed on survivorship which begins at the time of diagnosis and extends beyond acute treatment. The diagnosis and treatment of cancer has an effect on the biological, psychological and social aspects of the woman's life with a profound impact on sexual functioning. Gynaecological cancer treatment depends on the site and extent of the disease. Management may involve surgical intervention, chemotherapy and radiotherapy, modalities which can cause significant morbidity.

It has been reported that up to 90 percent of women with a history of cancer may experience sexual difficulties, most commonly dyspareunia, vaginal dryness and loss of desire. These may lead to dissatisfaction in intimate relationships and therefore a reduced quality of life. It is known that information about the sexual changes which may occur is associated with positive psychological and sexual adjustment. Health care professionals working in cancer care often position sex and intimacy as secondary to survival and find the topic difficult to discuss. Patients and partners of patients, are often left feeling dissatisfied with lack of information and time spent addressing these issues and concerns.

In this paper, I will attempt to highlight the various treatments of gynaecological cancers with focus on the impact on physical, psychosexual and quality of life issues, and the prevalence and treatment of sexual health concerns.

WORK- SHOP

Bohlius, Julia

CANCER IN HIV-INFECTED CHILDREN: RECORD LINKAGE STUDY IN SOUTH AFRICA

**Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013**

Julia Bohlius*¹; Nicky Maxwell²; Rosalind Wainwright³; Janet Poole⁴;
Alan Davidson⁵; Cristina Stefan⁶

¹University of Bern, Switzerland; ²University of Cape Town, South Africa;

³Chris Hani Baragwanath Academic Hospital, South Africa; ⁴Charlotte Maxeke Johannesburg Academic Hospital, University of the Witwatersrand, South Africa; ⁵Red Cross Children's Hospital and the University of Cape Town, South Africa; ⁶Tygerberg Hospital and Stellenbosch University, South Africa

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Objectives To examine the prevalence and incidence of cancer in HIV-infected children in antiretroviral therapy (ART) programmes in South Africa.

Methods We linked records of patients aged ≤ 16 years from five ART programmes (Harriet Shezi and Rahima Moosa in Johannesburg; Khayelitsha, Red Cross and Tygerberg in Cape Town) to the records of the four corresponding paediatric oncology units (Baragwanath and Charlotte Maxeke in Johannesburg; Red Cross and Tygerberg in Cape Town). Records were linked based on folder numbers, names, birth date and sex. We calculated prevalence at enrolment, incidence rates and hazard ratios (HR) from Cox regression adjusted for ART (time-updated), sex, age, clinical stage and year.

Results Data of 13,074 HIV-infected children were included in the analysis of prevalence and 12,303 children (33,089 person years) in the incidence analysis. A total of 73 cancers were identified: 12 cases were recorded in both datasets, 11 in the ART programmes only and 50 in the oncology files only. Forty-eight children (0.4%) presented with a prevalent cancer and 25 children developed cancer after enrolment into ART programme (incidence rate 76/100,000 pys). Most cancers were AIDS-defining (22 prevalent and 10 incident Kaposi sarcoma, 20 prevalent and 9 incident Non-Hodgkin lymphoma). HRs were 8.2 (95% CI 2.0–32.7) comparing age > 10 with < 3 years, 1.0 (95% CI 0.4–2.5) comparing boys and girls, and 2.0 (95% CI 0.5–9.0) comparing advanced with less advanced stage.

Conclusion The incidence of cancer in HIV-infected children is high but ascertainment of cancers in ART programmes is incomplete.

WORK- SHOP

Free
communication
of abstracts III
14h30–17h30
Friday
22 November
2013

Bohm, Lothar

PERFORMANCE OF INVASION MARKERS OF THE PLASMINOGEN ACTIVATOR GROUP IN THE IDENTIFICATION OF AGGRESSIVE AND NON-AGGRESSIVE PROSTATE CANCER

Lothar Bohm*

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Objective Urokinase plasminogen activator (uPA) and its inhibitor type 1 (PAI-1) are associated with tumour metabolism and are informative for the identification of a variety of human cancers. In this research we have examined the merits of these 2 invasion markers for identification of benign prostatic hyperplasia and prostate cancer. TURP prostate tissue resections from patients with prostate cancer (PCa) and with benign prostatic hyperplasia (BPH) were analyzed for protein levels of uPA and PAI-1 and data were examined to search for distinctions between these 2 abnormalities.

Methods TURP and needle biopsies from 16 patients with prostate cancer (PCa) and 46 with benign prostatic hyperplasia (BPH) as determined by histopathology were homogenized by freeze punch at -190 degrees. The tissue powder was then extracted with TRIS/Triton X-100 buffer and subjected to an ELISA assay (FEMTELLE, American Diagnostica) for uPA and PAI-1. The results were examined by linear regression and data sets were compared by unpaired t-test using $p < 0.05$ as a statistically significant difference.

Results The concentrations of uPA were found to be 0.19 ± 0.04 ng/mg proteins and 0.15 ± 0.02 ng/mg while PAI-1 was 4.93 ± 0.90 and 5.87 ± 0.70 ng/mg in PCa and BPH samples respectively with PAI-1 exceeding uPA by a factor of 39 and 26 respectively. In BPH samples there was a trend of PAI-1 to increase with uPA content, while in PCa samples PAI-1 was essentially constant. The mean uPA/PAI-1 ratio in PCa samples was 0.06 ± 0.01 and significantly higher than in BPH samples by a factor of 2. ($p = 0.0028$) $R^2 = 0.1389$

Conclusions uPA/PAI-1 ratios in tumour tissue extracts emerge as candidate markers to distinguish between BPH and PCa.

Saturday
23 November
2013

Rahman A Bolarinwa*; Anthony A Oyekunle; Lateef Salawu; Norah O Akinola;
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Objective To analyze the characteristics of patients, and associated risk factors for death in a cohort of Nigerians on imatinib for CML.

Method This is a retrospective review including 80 deaths of 509 patients receiving compassionate imatinib at the Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC), Ile-Ife, Nigeria on account of CML from April 2003 to May 2013. The diagnosis was established based on morphology, and detection of Ph chromosome and/or bcr-abl transcripts. The cumulative frequency of patients and death(s) per year was determined, while data was descriptively analyzed for the characteristics of patients and risk factors for death.

Results The series mean age was 39 years (range = 11- 69 years) with a M: F ratio of 1:0.95. Diagnosis was established by Ph chromosome positivity (93.7%) and detection of bcr-abl transcripts in the rest. Eighty (15.6%) deaths were recorded in a cumulative 512 patients over 10-year period with an average of eight deaths per year. Most patients presented in advanced stage with moderate and poor prognostic score (Sokal Score) in 41.3% and 38.4% respectively. All patients except two had received chemotherapy with hydroxyurea alone or in combination before commencing imatinib. The average time of imatinib use was 27 months (range = 1–87 months) with disease progression as the cause of death in 83.7% while remainder died from other causes.

Conclusions The death rate in this series was 8 per year, while presentation of patients in advanced phase of disease is an important risk for disease progression and death in over 80% of the cohort. Therefore, there is a strong need for increase awareness for early diagnosis, and accessibility to alternative TKIs to improve patient survival in our setting.

Botelho, Monica C

ESTROGEN-DNA ADDUCTS MEDIATED PATHWAY AS A CAUSE OF BLADDER CANCER ASSOCIATED WITH SCHISTOSOMIASIS INFECTION

Friday
22 November
2013

Julio Santos¹; Lucio Santos*¹; Carlos Lopes²; José Correia da Costa³; Gabriel Rinaldi⁴; Paul Brindley⁴; Monica C Botelho³

¹Clinica Sagrada Esperança, Angola; ²Institute of Biomedical Sciences (ICBAS), Portugal; ³National Institute of Health (INSA), Portugal; ⁴George Washington University, United States

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Urogenital schistosomiasis – chronic infection with the human blood fluke *Schistosoma haematobium* – is a definitive risk factor for cancer. Schistosomiasis haematobia leads to squamous cell carcinoma of the urinary bladder (SCC) in many countries of Africa and the Middle East where this neglected tropical disease is endemic. SCC usually presents earlier than the much more common form of bladder cancer in developed countries, transitional cell carcinoma.

The transformation from chronic urogenital schistosomiasis to SCC is likely to be multi-factorial. However, we have recently discovered a novel factor – the release of reactive estrogen-like metabolites by the parasite eggs trapped in the wall of the bladder – that may be central to the tumorigenesis of SCC. Using mass spectrometric approaches we identified catechol-estrogens and estrogen-DNA adducts in eggs of *S. haematobium* and in urine of persons with schistosomiasis haematobia who reside endemic sites (in Bengo and Luanda provinces) in Angola.

Because schistosome eggs produce catechol-estrogens, and given that estrogens are metabolized to active quinones that can modify DNA in other contexts (which can, for example, lead to breast cancer or to thyroid cancer), we now hypothesize that schistosome egg associated catechol estrogens induce tumor-like phenotypes in urothelial cells, arising from parasite estrogen-host cell chromosomal DNA adducts and mutations.

Moreover, estrogen-DNA adducts shed in urine may be prognostic of schistosome infection and/or represent potential biomarkers for urogenital schistosomiasis associated bladder cancer. In the present work we tested this hypothesis with a particular emphasis on the role of novel schistosome catechol-estrogens on hyperplasia and dysplasia of the urothelium and generation of potentially mutagenic DNA-adducts. This study can be anticipated to deliver pivotal new insights into how urogenital schistosomiasis drives tumorigenesis of SCC.

POSTER 051

Brady, Bernadette

SIGNS OF APPROACHING DEATH: THE FAMILY'S EXPERIENCE

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Friday
22 November
2013

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Objective The aim of this study was to determine the signs that indicate approaching death to family members of patients enrolled on a hospice programme.

Methods Family members are visited to offer bereavement support as part of routine care at Hospice Africa Uganda (HAU). During this visit, they are asked, "Were you aware that death was approaching?" , - and "What indicated to you that death was approaching?". Up to 5 answers could be given to the second question. This study looked at the responses of 75 families, across the three sites of HAU, who had experienced bereavement from January to June 2013.

Results The patients were 41% male, age range 17-91 years, on HAU programme for a median of 121 days. 72% had a diagnosis of cancer alone, 11% had a dual diagnosis of cancer and HIV/AIDS while 12% had HIV/AIDS alone. 79% died at home with the remainder dying in hospital.

76% of families were prepared for the patient's death while 84% were aware that death was approaching.

The most common signs noted by family members prior to the patient's death were: (number of families) %*

- Decreased oral intake (33) 44%
- Generalised weakness/decreased mobility (29) 39%
- Change in breathing pattern (26) 35%
- Confusion/restlessness (23) 31%
- Decreased communication (23) 31%
- Patient awareness (e.g. saying goodbye) (12) 16%

*Results sum to more than 100% as more than one answer could be given.

Conclusion Most families were aware that death was approaching for their patient. The most common signs reported were reduced oral intake, increasing weakness, change in breathing pattern, altered cognition and decreased communication.

WORK- SHOP

**MD Anderson
global initiative
for cancer care
in Africa**
14h30–17h30
Thursday
21 November

Brewster, Abenaa

THE EPIDEMIOLOGY OF TRIPLE NEGATIVE BREAST CANCER ACROSS THE AFRICAN DIASPORA

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The incidence of breast cancer is increasing throughout parts of the African diaspora and is strongly influenced by the increased westernization of lifestyles in emerging economies. In low-middle income countries across the African Diaspora, breast cancer is diagnosed at an advanced stage and has a high mortality rate. The reasons for the advanced stage at diagnosis are multifactorial and include lack of population-based mammography screening, poor access to health care, an inadequate health care infrastructure, cancer stigmatization, lack of education and poor social supports.

Women of African descent have a disproportionately higher frequency of triple negative (estrogen receptor-negative/progesterone receptor-negative / Her2neu-negative) breast cancers (25% to 55%) and present at a younger age compared to white women. Triple negative or the basal-like subtype of breast cancer have a variable response to chemotherapy and are associated with a high recurrence rate after definitive treatment. Among African American women, premenopausal status, increased parity and lack of breast feeding are positively associated with an increased risk of triple negative breast cancer. The search for common African ancestral informative markers that predispose to triple breast cancer independent of known environmental risk factors is an active area of research.

The goal of on-going epidemiological studies is to identify lifestyle, reproductive and genetic risk factors associated with TN breast cancer that can be targeted for prevention interventions. High priority clinical trials that combine novel targeted agents with standard chemotherapy regimens are being conducted. There is an urgent need for collaborative multinational research that focuses on the pathogenesis, prevention and treatment of triple negative breast cancer.

WORK- SHOP

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Brinton, Louise

MULTIDISCIPLINARY CASE-CONTROL STUDY OF BREAST CANCER IN ACCRA AND KUMASI, GHANA: OPPORTUNITIES AND CHALLENGES

Louise Brinton*¹; Beatrice Addai²; Daniel Ansong³; Baffour Awuah³; Joe Nat Clegg-Lamptey⁴; Jonine Figueroa¹

¹National Cancer Institute, United States; ²Peace and Love Hospital, Ghana;

³Komfo Anoyke Teaching Hospital, Ghana; ⁴Korle Bu Teaching Hospital, Ghana

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Objective To determine reasons for the increasing occurrence of breast cancer in Ghana and for the preponderance of advanced and poor-prognosis tumors at diagnosis.

Methods In February 2013, we initiated a multi-disciplinary case-control study involving incident breast cancer patients presenting to three hospitals in Accra and Kumasi, and population controls identified through 2010 census data and household surveys. The study, to involve 2,000 cases and 2,000 controls, includes personal interviews, anthropometric measurements, collection of blood and saliva, and acquisition of breast tissue samples prior to neoadjuvant therapy.

Results To date, we have enrolled over 200 cases and a comparable number of controls. Interview response rates have been high (95–98%) and most interviewed patients are providing biologic samples (89–96%). The cases are generally young (average to date=47 years) and present with large tumors. An emphasis on prospectively collecting and preserving breast tissue samples is enabling derivation of high-quality immunohistochemical markers for comparisons with other populations. Evaluation of a variety of novel etiologic hypotheses is demonstrating relatively high exposure rates to such factors as malarial infections, DDT, occupational chemicals, skin lighteners and hair straighteners. Data on approximately 450 cases and an equal number of controls will be presented.

Conclusions Although a number of opportunities exist for deriving insights regarding epidemiologic predictors of breast cancer in Ghana, our study has also demonstrated that there are notable challenges. With adherence to detailed protocols and careful monitoring of field activities, the probability for a successful epidemiologic study of breast cancer in Africa appears high.

Buecker, Rebecca

CLINICAL EXPERIENCE USING INTRA-OPERATIVE RADIOTHERAPY AS A BOOST WITH LOW-ENERGY X-RAYS USING THE INTRABEAM-SYSTEM DURING BREAST-CONSERVING SURGERY

Friday
22 November
2013

Rebecca Buecker*¹; Andreas Goehlert¹; Platon Papageorgiou²; Stefan Wilhelms²; Gyoergy Loevey¹

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Objective The use of low energy X-rays using the INTRABEAM® System Intra-operative radiotherapy as a boost in the therapy of early stage breast cancer has been proven to be an ideal method to directly treat the tumor bed. We analyzed the toxicity after a single fraction of 20Gy Boost with low energy X-rays (50kV) using the INTRABEAM® System in early stage breast cancer treatment.

Method 105 patients were treated in our department of radiation oncology with the INTRABEAM® System (Carl Zeiss Surgical, Oberkochen, Germany). The patients' age ranged from 38 years through 84 years. The histologies were invasive ductal in 98 patients, invasive lobular in 3 patients, mixed invasive ductal and lobular in 2 patients, 1 mucinous and 1 papillary. 32 Patients were nodal positive and 67 nodal negative. The delivered intra-operative dose of 20 Gy to the surface of the applicator in the tumor bed using applicators of 25mm up to 50mm diameter, in an average time of 25,54 minutes. If indicated, chemotherapy was administered. Subsequently the patients received fractionated external beam radiotherapy (EBRT) for the whole breast with 5x1,8 Gy/week up to 45–50,4Gy. All patients were regularly evaluated in terms of toxicity.

Results The intra-operative Boost with low energy X-rays using was well tolerated. There was retraction of the scar in 8 patients. Two patients had fibrosis. Pigmentation in 3 patients and 2 patients with necrosis surgically managed. The rest of the patients had no grad 3 or 4 toxicity according to the CTC4.0. One patient had metastasis, 1 patient suffered a second malignancy of the tongue and 1 elderly patient died of other cause. Despite the short follow-up period the cosmetic results are comparable to those in the literature.

Conclusion The Intra-operative Radiotherapy as a boost with low-energy X-rays using the INTRABEAM® System with a single dose of 20Gy to the surface of the applicator followed by EBRT yields low toxicity rates. Follow-up still continues.

WORK- SHOP

Liver cancer

11h00–13h00

Saturday

23 November

2013

Buonaguro, Franco Maria

HCC PATHOGENESIS HCV VS HBV MOLECULAR PATHWAYS

Franco Maria Buonaguro*¹; Maria Lina Tornesello²; Gerardo Botti³; Francesco Izzo³; Luigi Buonaguro³

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Hepatocellular carcinoma (HCC) is the third leading cause of cancer death worldwide. Hepatocarcinogenesis is a multistep process mainly associated with persistent infection with hepatitis B (HBV) or C (HCV) viruses and always involving the accumulation of genetic alterations over decades. Mutations in TP53 and CTNNB1 genes show variable frequencies in HCC depending on etiology and geographical region. In Africa and Asia, AFB1 exposure represents the main genotoxic factors for TP53 R249S mutation and development of HCC in association with HBV infection. Mutations in CTNNB1 gene, on the other hand, are similarly frequent in HCV-related and non-viral related HCCs from different geographic regions, while underrepresented in HBV-associated tumors.

The results obtained in our Italian HCC series show that somatic mutations in TP53 gene are similarly represented in HBV- (20%) and HCV-related (15.8%) HCC cases. Moreover, TP53 mutations were similarly distributed among the different patient groups, and no statistically significant correlation with sex, onset age and histological tumor grading was found. No mutations at hot spot codons 249 were identified indicating the modest role of AFB1 as carcinogenic agent in HCC-patients from Southern Italy. Mutations in exon 3 of CTNNB1 gene occurred exclusively in HCV-related HCCs (17.5%). All mutations were heterozygous, between codon 32 and 45, and mutually exclusive with mutations in TP53 gene. Patients with HCC mutated in CTNNB1 gene were significantly younger or with moderately/poorly differentiated cirrhotic HCC compared to patients with wild-type CTNNB1. Hot spot mutations in the exon 9 of PIK3CA were found in none of the HCC samples.

Our analysis suggests that TP53 and CTNNB1 genes contribute to define distinct subgroups of viral-related HCC. Further studies will be needed to verify whether TP53 and CTNNB1 mutational status might be predictive of prognosis and relevant for HCC-patient tailored therapy.

POSTER 053

Busolo, David CANCER PREVENTION IN AFRICA

David Busolo MPH, RN*; Roberta Woodgate, PhD
University of Manitoba, Canada

Friday
22 November
2013

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Background Cancer is an emerging crisis in Africa. Cancer was the seventh leading cause of death in 2004. If not controlled, cancer incidence in Africa is expected to reach 1.28 million cases and claim 970,000 lives by 2030.

Objective To examine literature on current cancer prevention approaches in Africa.

Methods Review of cancer prevention studies conducted in African countries (e.g. South Africa and Nigeria) from PubMed, Scopus and CINAHL databases.

Results Common cancers in Africa are cervical, breast, prostate, liver, colorectal, non-Hodgkin's lymphoma, ovarian, Kaposi's sarcoma, skin, lung, bladder, and esophageal cancer. Mortality related to these cancers comes as a result of delays in screening and treatment. Similarly, deaths result from lack of awareness, inaccessibility and unaffordability of care, and inefficient healthcare systems. Cancer prevention efforts are lacking because of low levels of awareness, deficiency of human and financial resources, vaccine inaccessibility, inadequacy of cancer registries, and lack of political will. Rigorous research on cancer etiology and monitoring in Africa is wanting with most governments lacking cancer prevention and control policies. In cases where policies exist, governments grapple with implementation funds and competing healthcare priorities. Scant but effective 'see and treat' and immunization programs should be expanded across Africa. There is need for interdisciplinary research, cost effective programs, and coordination of donor funding, advocacy, education and knowledge sharing.

Conclusion As cancer continues to increase in Africa, cost effective prevention methods should be aggressively pursued. The call for more collaborative approaches in research and policy is now.

WORK- SHOP

Canfua, Rosemary

**ORAL MORPHINE PRODUCTION AND DISTRIBUTION:
THE UGANDA EXPERIENCE**

**Pain
management**

11h00–13h00

Saturday

23 November

2013

Rosemary Canfua*
Hospice Africa Uganda, Uganda

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During the 2010 morphine powder stock out Treat the Pain convened stake holders meetings to solve this National crisis. Hospice Africa Uganda was identified to start its National morphine production in 2011 on contract with Ministry of Health through National Medical Store (NMS).

NMS supplies the accredited health facilities simple equipment: a weighing scale, a mixing bucket, manual filling tank, amber plastic bottles and sticker labels were procured. Two technical staff and others were recruited for scaled up production after a pre inspection of premises. A simple oral solution is made in three different strengths 5mg, 10mg and 20mg each in 5ml using demineralised or purified bottled water using approved official protocols. This oral solution is preferred because it is effective, affordable and easy to administer. Amber plastic bottles are used for packing to protect the morphine from sun light degradation. 0.02% BRONOPOL is used as preservative for six months shelf life and more. 0.008% food grade colours (green, red and blue) is used for each strength identification.

This experience demonstrates that local production can be a simple, affordable and sustainable with attention on product quality. With use of available limited equipment a lot can be done to mitigate the challenges of limited access and availability oral morphine essential for moderate to severe pains management. With support from the American Cancer Society program efforts to semi automate the system will increase production to meet National growing demand.

Charwudzi, Alice

DETECTION OF BCR-ABL TRANSLOCATION FROM ARCHIVAL METHANOL FIXED BONE MARROW SLIDES USING FLUORESCENT IN SITU HYBRIDIZATION

Saturday
23 November
2013

Alice Charwudzi*¹; Edeghonghon Olayemi²; Ivy Ekem²; Olufunmilayo I Olopade³; Mariann M Coyle³; Amma A Benneh⁴
¹University of Cape Coast, SMS, Ghana; ²University of Ghana Medical School, Ghana; ³University of Chicago, Department of Medicine, United States; ⁴Korle-Bu Teaching Hospital, Ghana

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Objective To determine if archival methanol fixed bone marrow (BM) smear slides stored for 10-38 months can be used for molecular diagnosis of CML.

Methods The study included 22 archival methanol-fixed BM smear slides obtained at diagnosis from Korle-Bu Teaching Hospital, Ghana. These included 20 CML and 2 CMML cases diagnosed by morphology. Six cases had known BCR/ABL fusion results at diagnosis by RQ-PCR. BV173 cell line was used as BCR/ABL positive control. The archival smears were pre-treated by digestion in 0.05 mg/ml pepsin/ 10mmol/HCl. Dropped control cells were pre-warmed at 75°C and aged. Vysis LSI BCR/ABL Dual Color, Dual Fusion Translocation DNA FISH Probe was used; the manufacturer's protocol was followed. Hybridized cells were counterstained with DAPI II and viewed through a dual bandpass filter fluorescence microscope.

Results 19 (95%) out of the 20 CML smears demonstrated the BCR-ABL translocation. The percentage mean score for the positive smears was 89.5% (Range: 70.0–98.0 %). The major scoring signal patterns obtained were 2F1R1G (n = 17); 1F1R2G (n = 1) and 1F2R1G (n = 1). The 2 CMML smears were negative. There was a significant correlation between the BCR-ABL transcript detected at diagnosis by RQ-PCR using peripheral blood and that retrospectively detected by FISH from the aged bone marrow smears ($r=0.870$; $p=0.035$; Fisher exact test).

Conclusions The result confirms that archival bone marrow smears can successfully be used to diagnose CML. This has significant implications for the setting up of regional diagnostic centres of excellence on the African continent.

Friday
22 November
2013

Chidothe, Irene

THE ROLE OF NEOADJUVANT CHEMOTHERAPY IN AFRICAN-ALBINOS WITH LOCALLY ADVANCED SQUAMOUS CELL CARCINOMA AT A BLANTYRE HOSPITAL

Irene Chidothe*; Leo Masamba
Queen Elizabeth Central Hospital, Malawi

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Background Albinism is an inherited disorder characterized by a reduced or lack of melanin; a photo protective chemical responsible for pigmentation in the body. This renders albinos more prone to skin cancer due to ultraviolet radiation. The management of such cases in many African settings is a challenge due to late presentation of patients and inadequate therapeutic resources such as radiotherapy. The aim of the audit was to assess the role of neoadjuvant chemotherapy in albinos presenting with locally advanced cancer and its subsequent bearing on surgical management.

Method Seven cases of histologically confirmed advanced SCC of the skin in Albinos treated with chemotherapy between 2010 and 2013 in the adult oncology unit at Queen Elizabeth Central Hospital, Blantyre, Malawi were reviewed; history, examination, chemotherapy regimen and tumor response were noted. The data was analyzed using descriptive statistics.

Results A total of 7 patients were treated in our unit during the specified period of which 2 were female and 5 males. The median age was 32 years (range 19 to 50 years) and all the lesions were in the head and neck region; specifically the cheek with no distant metastases. The average symptom duration was 20 months. Two patients presented with recurrent disease following prior surgical excision. All were chemo-naïve at presentation and started on a platinum based therapy (Cisplatin or Carboplatin) coupled with either 5-Fluorouracil (day 1 to 4) or Doxorubicin cycled at 21 days. The average cycles given were 6. Three patients had complete tumor response following chemotherapy of which 2 underwent surgical excision which involved Pinnectomy with a Pectoralis Major Myocutaneous flap (figure 2) but the third patient defaulted surgery. She presented with a recurrence 7 months later and was re-challenged with chemotherapy to which she responded completely (figure 1). One out of the 7 patients had near complete response whilst 3 had partial responses but 2 of them were lost to follow up.

Conclusion It is possible to achieve acceptable complete and partial responses that may allow surgery. This however is hypothesis generating and should serve as a basis for extensive research.

WORKSHOP

Chigbu, Chibuiké

ASSESSMENT OF IMPACT OF 'SEE AND TREAT' APPROACH USING VISUAL INSPECTION WITH ACETIC ACID AND CRYOTHERAPY IN THE REDUCTION OF THE BURDEN OF CERVICAL CANCER IN LOW-INCOME POPULATIONS

BIG CAT
grants I
09h00–10h30
Thursday
21 November
2013

Chibuiké Chigbu*¹; Leonard Ajah¹; Azubuiké Onyebuchi²

¹University of Nigeria Teaching Hospital, Enugu, Nigeria; ²Federal Teaching Hospital, Abakaliki, Nigeria

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Objective To compare immediate treatment versus confirmatory colposcopic procedures prior to treatment for women who tested positive to VIA cervical screening.

Method Participants were screened with VIA. VIA-positive women were randomised to either receive immediate treatment with cryotherapy or undergo colposcopic confirmatory procedures and LLETZ. Cervical biopsies were taken prior to cryotherapy.

Results Prevalence of pre-malignant lesions of the cervix was 11.2% while that of invasive cervical cancer was 0.03%. Both groups showed similar cure rates; over-treatment rate was 15.3% for the immediate cryotherapy group. Treatment default rate was 0.0% for the immediate cryotherapy group and 44.2% for the colposcopic group. The awareness of cervical cancer screening in participating communities increased from a baseline 6.2% to 98.1% in one year. Uptake of cervical cancer screening improved from 0.6% to 99.1% of eligible inhabitants of participating communities. The huge improvement in awareness and uptake of cervical cancer screening was attributable to the community-engagement approach adopted for the study.

Conclusion VIA screening and immediate treatment of VIA-positive women with cryotherapy is an effective strategy for cervical cancer prevention in low-resource populations of south eastern Nigeria.

Published/Presented results

1. Motivation and preferences of rural Nigerian women undergoing cervical cancer screening via visual inspection with acetic acid. *Int J Gynecol Obstet* 2013; 120(3): 262–265.
2. Visual LLETZ with portable diathermy machine for 'see and treat' management of VIA-positive cervical lesions in resource-poor settings. Article submitted for publication. Abstract Published at the 2012 SOGON conference in Nigeria.

Articles in preparation for publication

VIA plus immediate cryotherapy versus VIA plus colposcopy procedures for cervical cancer prevention in south eastern Nigeria.

Sunday
24 November
2013

Nkem Chineme*¹; Dimitris Papoutsakis²; Jordi Barretina*²; Olufunmilayo Olopade*¹; Oladosu Ojengbede³; John Obafunwa⁴; Barbara Weber²; Abayomi Odetunde⁵; Toshio Yoshimatsu¹; Walmy Elisabeth Sveen¹; Abiodun Popoola⁶; Akinyemi Ojesina⁷

¹University of Chicago, USA; ²Novartis Institutes for BioMedical Research, USA;

³College of Medicine, University of Ibadan, Nigeria; ⁴Lagos State University, Nigeria; ⁵IAMRAT, University of Ibadan, Nigeria; ⁶Lagos State University Teaching Hospital, Nigeria; ⁷Broad Institute of MIT and Harvard, USA

Correspondence Chineme, Nkem | Email: ndike@bsd.uchicago.edu

Objective To describe the genomic architecture of breast cancer samples from Nigerian women and compare the type and frequency of the underlying genetic alterations to those of North American Caucasian and African-American breast cancers in publicly available dataset. Also, to help develop sustainable translational research infrastructure in Nigeria by training collaborators in sample preparation, genetic material extraction and genetic analysis.

Methods Genomic data will be generated using transcriptome and exome sequencing, which will comprehensively characterize both mutations and structural rearrangements. Whole exome sequencing will be performed on all tumor samples at 150X coverage and the data will be analyzed to identify genes with recurrent somatic mutations. Data sharing will be carried out and the list of candidate genes obtained will also be compared to data from other cohorts of tumor/normal pairs. Various logistic regression methods will be applied to model germline breast cancer risk and the development of specific subtypes, such as triple-negative breast cancer.

Results Translational medicine research infrastructures at the UI/UCH and LASUTH are being developed to ensure successful sample collection and translational research sustainability. The Laboratory in UI/UCH is fully operational and has capacity to perform DNA/RNA extraction and analysis, Immunohistochemistry, biosimilar / pharmacoequivalence studies as well as biochemical studies including HB Variant analysis for Sickle Cell and Diabetes monitoring.

Conclusions With supply of critical equipment needed and personnel training on drug discovery topics, tissue handling, genomics and bioinformatics, African investigators will become fully equipped to participate in global cancer clinical trials.

PLENARY

Chirenje, Z Mike

ADVANCED GYNECOLOGICAL CANCERS IN AFRICA: BEST SUPPORT AND CARE

Gynaecological cancers

09h10–10h30

Sunday

24 November

2013

Z Mike Chirenje*

University of Zimbabwe, College of Health Science, Zimbabwe

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Background The burden of advanced gynecological cancers remains disproportionately high in Sub-Saharan Africa (SSA) due to inadequate community knowledge about cancer and inadequate manpower and facilities to support cancer care.

In SSA, cervical cancer remains the commonest cancer in female genital tract (80%), with approximately 75,000 cases diagnosed yearly, >85% presenting with clinical stage above 2b, and 53,000 deaths occurring yearly. Majority of women presenting with cervical cancer in SSA have no history of screening for pre-cancerous lesions. Paucity of pathologist for histological confirmation, inadequate chemo-radiation facilities makes optimum care a remote chance. Many SSA countries have currently no radiotherapy facilities, resulting in less than 1 machine per 10 million people.

Ovarian cancer, which remains the most fatal gynecological cancer, is the second most common gynecological cancer in SSA (4% gynecological cancers), with 75 % of women presenting at clinical stage 3, a finding that is worldwide because of absence of accurate screening test currently. Corpus uteri (3%), vulva (2%), choriocarcinoma (3%) have variable presenting patterns with significant morbidity and mortality.

Treatment for advanced gynecological cancers is individualized, decided by a multidisciplinary team (pathologist, gynecologists, radiation oncologist, medical oncologist), at a tertiary referral center, to meet the interest of each patient. Treatment team must have adequate training, skill and experience to monitor treatment outcome and manage complications and provide supportive care for women with cancer.

WORK- SHOP

Chirenje, Z Mike

**TRAINING HUMAN RESOURCES IN THE CONTEXT OF ROLL OUT OF
CERVICAL SCREENING**

**Cervical
cancer
prevention II**
11h00–13h00
Thursday
21 November
2013

Z Mike Chirenje*

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The burden of cervical cancer remains disproportionately high in Sub-Saharan Africa (ASR 20–35 per 100,000) due to inadequate community knowledge about cancer and inadequate manpower and facilities to screen and treat pre-cancerous lesions (CIN disease). In SSA, cervical cancer remains the commonest cancer in female genital tract (80%), with approximately 75,000 cases diagnosed yearly, >85% presenting with clinical stage above 2b, and 53,000 deaths occurring yearly.

Infection with persistent oncogenic HPV infection is a necessary cause of cervical cancer, occurring over a period of 10–20yrs, allowing adequate time to implement effective screening to detect and treat CIN disease. Cervical cancer prevention can be achieved by implementing large scale screening program of sexually active women by offering cytology, which requires lab infrastructure, trained cyto-technicians and cyto-pathologist. It requires re-call of test positive cases and has been difficult to implement in low resource settings.

Visual inspection with acetic acid (VIA) allows detection of pre-cancer lesions with sensitivity of about 75%, cryotherapy treatment can offered immediately if a lesion is well demarcated. Nurse practioners can be trained to offer VIA and treatment with cryotherapy and many countries in SSA have embarked on demonstration projects that will allow future planning for scaling up programs.

Each country must have a dedicated budget to support cervical cancer screening with adequate funds to train manpower that will sustain screening and treatment CIN.

WORK- SHOP

Africa Cancer Registry Network

14h30–17h30

Friday

22 November
2013

Chokunonga, Eric

TIME TRENDS IN CANCER INCIDENCE IN AFRICA

Eric Chokunonga*

Zimbabwe National Cancer Registry, Zimbabwe

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Background The aim of the study was to document the pattern and evolution of cancer incidence in the black population of Harare, Zimbabwe over a 20-year period (1991–2010). The data were drawn from the database of the population-based Zimbabwe National Cancer Registry.

Methods Age-standardized incidence rates (ASRs) of different cancers were calculated by 5-year age groups and sex. The period under review coincided with major socio-economic changes including the peak and subsequent wane of the HIV-AIDS epidemic in Zimbabwe. ASRs of the major cancers for three 5-year time-periods were compared.

Results A total of 28319 cancer cases comprising 14577 male and 13742 female were analyzed. The most common male cancers were Kaposi sarcoma (KS) (34.6%), prostate (10.7%), liver (7.6%) and esophagus (6.0%). In women, cervix cancer was the most common (24.6%) followed by KS (17.4%) and breast (10.4%). The overall risk of cancer increased during the period in both sexes: rates of cervix and prostate cancers showed dramatic increases (3.3% and 6.4% annually). Rates of breast and cervix cancers have both shown significant increases (4.9% and 3.3% annually, respectively). The incidence of KS increased to a maximum around 1998–2000 and then declined in all age groups, and in both sexes. The rate of squamous cell conjunctival cancers is relatively high, with temporal trends similar to those of KS. Non-Hodgkin lymphoma (NHL) showed a steady annual increase in incidence throughout the period (6.7–6.9%).

Conclusion The on-going surveillance system provided by the registry in this predominantly urban population provides a picture of the evolution of the problem of cancer in modern sub-Saharan Africa.

Saturday
23 November
2013

Eric Chokunonga*¹; Margaret Borok¹; Mike Chirenje¹; Anna Nyakabau¹;
Max Parkin²

¹Zimbabwe National Cancer Registry, Zimbabwe;

²INCTR Cancer Registry Programme, United Kingdom

Correspondence Chokunonga, Eric

Email: cancer@ecoweb.co.zw

Objective To document the pattern and evolution of cancer incidence in the black population of Harare over a 20-year period (1991–2010).

Methods Age-standardised rates (ASRs) of different cancers were calculated by 5-year age groups and sex. The period under review coincided with major socio-economic changes including the peak and subsequent wane of the HIV-AIDS epidemic in Zimbabwe. ASRs of the major cancers for three 5-year time-periods were compared.

Results A total of 28319 cancer cases comprising 14577 male and 13742 female were analysed. The most common male cancers were Kaposi sarcoma (KS) (34.6%), prostate (10.7%), liver (7.6%) and oesophagus (6.0%). In females, cervix cancer was the most common (24.6%) followed by KS (17.4%) and breast (10.4%). The overall risk of cancer increased during the period in both sexes: rates of cervix and prostate cancers showed dramatic increases (3.3% and 6.4% annually). Rates of breast and cervix cancers have both shown significant increases (4.9% and 3.3% annually, respectively). The incidence of KS increased to a maximum around 1998–2000 and then declined in all age groups, and in both sexes. The rate of squamous cell conjunctival cancers is relatively high, with temporal trends similar to those of KS. Non-Hodgkin lymphoma showed a steady annual increase in incidence throughout the period (6.7–6.9%).

Conclusions The on-going surveillance system provided by the registry in this predominantly urban population provides a picture of the evolution of the problem of cancer in modern sub-Saharan Africa. The increase and subsequent waning of the epidemic of HIV-AIDS is mirrored by the trends in AIDS-related cancers whereas cancers associated with westernisation of life-styles (breast, prostate and large bowel cancers) continue to increase. At the same time, there has been no decline, and even some increase, in the incidence rates of the major cancers of the region (cervix, liver and oesophagus).

WORK- SHOP

**Free
communication
of abstracts II**
14h30–17h30
Friday
22 November
2013

Company, Assumpta

THE VUCCNET EDUCATION PROGRAM ON CERVICAL CANCER PREVENTION: RESULTS OF AN E-LEARNING EXPERIENCE IN AFRICA

Assumpta Company^{1*}; FX Bosch²; M Montserrat²; P Perez²; A Sedano²
¹e-oncologia, Institut Catala Oncologia, Hospitalet de Llobregat; ²PREC, Institut
Catala Oncologia, Hospitalet de Llobregat

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Background The International Atomic Energy Agency through its Programme of Action for Cancer Therapy (PACT) has launched an initiative to establish a Virtual University for Cancer Control supported by regional cancer training and mentorship networks. This initiative, which is collectively referred to as VUCCnet, is intended to support and enhance Member States' programmes to build human resource capacity in cancer control. The four pilot countries for the English-speaking component of VUCCnet Africa are: Ghana; United Republic of Tanzania; Uganda; and Zambia.

A major emphasis during the first year of the VUCCnet pilot was the planning and development of a 'proof of concept' exercise involving an 18 hour Cervical Cancer Course aimed at doctors and nurses currently delivering prevention and early detection services. The technological platform and the scientific and pedagogical methodology were provided by e-oncología.

Objectives The global aims of the 'Proof of concept' exercise were to:

1. Establish proof of concept (e-learning is a viable method for cancer workforce education within African ICT conditions)
2. Evaluate a 'prototype' version of a VUCCnet model within the African context, to inform a broader roll out of the VUCCnet solution

Results Output was an 18 hours distance course. The course contents are largely based on the ICO HPV Monograph series. The program was scientifically validated and endorsed by FIGO, UICC, IAEA, IARC, and WHO, the course is being freely distributed.

During 2011 and 2012 there have been two editions of the course with a total of 107 participants an 80% of the students certified. The second edition of the course has been jointly tutorized by European and African tutors.

Conclusions E-learning methodology with a tutorial support can be a good and cost affordable solution to the medical education in Africa. The contents are easily adapted to each country particularities including translation to other languages.

POSTER
057

Coulibaly, Bourama

**LE CANCER À BAMAKO DE 2006 A 2010:
DONNÉES DU REGISTRE DES CANCERS DU MALI**

Bourama Coulibaly*¹; Brahim Mallé²; Bakarou Kamaté²; Cheick Bougadari Traoré²

¹AORTIC Zone Afrique Francophone, Mali; ²CHU du Point G, Mali

Friday
22 November
2013

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Le registre de cancer du Mali a été créé en 1986. C'est un registre de population couvrant le district de Bamako et ses environs. Il collecte les données sur tous les cas de cancer survenant dans la population. Notre étude s'est déroulée de Janvier 2006 à décembre 2010 et portait sur l'enregistrement prospectif sur le registre de population de tous les cas de cancers diagnostiqués dans le district de Bamako. Les cas retenus ont été codifiés selon la Classification Internationale des Maladies Oncologiques version 10 (CIMO-10). Les données ont été saisies, contrôlées et analysées par le logiciel Can reg version 4 élaboré par l'unité descriptive du Centre International de Recherche sur le Cancer (CIRC) de Lyon. De 2006 à 2010, 3643 cas de cancers ont été diagnostiqués dans le district de Bamako dont 1445 cas (40%) chez l'homme et 2198 cas (60%) chez la femme avec un sex-ratio de 0,66. L'incidence brute a été de 43,3 et 67,7 pour 100 000 habitants respectivement chez l'homme et chez la femme. Les localisations les plus fréquentes ont été chez l'homme l'estomac, la prostate et le foie avec des taux d'incidence respectifs à 5,7, 4 et 3,8 pour 100.000 habitants. Chez la femme, les localisations les plus fréquentes ont été le col utérin, le sein et l'estomac avec des taux d'incidence respectifs à 20,5, 12,4 et 4,7 pour 100.000 habitants. Chez l'enfant, les localisations les plus fréquentes ont été l'œil, les localisations des lymphomes malins non hodgkinien et le rein avec des taux d'incidence respectifs à 3,66, 3,09 et 2,82 pour 100.000 habitants. Le cancer constitue actuellement un des problèmes majeurs de santé publique au Mali.

WORK- SHOP

Cubasch, Herbert

SOME COMMON PRECONCEPTIONS ABOUT AFRICAN BREAST CANCER ADDRESSED IN A LARGE COHORT FROM SOWETO

**Breast cancer:
focus on
surgery**

11h00–13h00

Saturday

23 November
2013

Herbert Cubasch*¹; Judith Jacobson²; Maureen Joffe³; Valerie McCormack⁴
¹Wits University, South Africa; ²Columbia University, N.Y., United States;
³Wits, South Africa; ⁴IARC, France

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In a partnership with the IARC and Columbia University, data of more than 1000 consecutive breast cancer patients from a high volume Unit at the Chris Hani Baragwanath Academic Hospital in Soweto have been analyzed. We compared our numbers with international publications to shed light on the following popular concepts.

1. The co-infection with HIV affects incidence and subtypes of breast cancer? The HIV prevalence in our cohort is identical with that of the age-matched Sowetan source population. There was no evidence of a more aggressive expression of breast cancer for HIV positive compared to HIV negative patients.
2. African patients get breast cancer at a comparatively younger age? The demographic age distribution of our populations differs largely from the American SEER population. Applying the SEER age-specific breast cancer incidence rates to the age-structure of the Sowetan population reveals Sowetan and SEER age distribution curves of breast cancer patients that do not significantly differ.
3. The molecular sub-type of breast cancer differs markedly in African patients with a very high percentage of triple negativity? Despite some observed racial differences the age-specific ER positivity did not differ significantly from age group to age group from those in African Americans with a 63 percentage of overall ER positivity.

**POSTER
058**

Friday
22 November
2013

Davids, Lester

**PHOTODYNAMIC THERAPY AS A NOVEL THERAPY FOR
THE ADJUNCTIVE TREATMENT OF METASTATIC MELANOMA:
AN IN-VITRO STUDY**

Lester Davids*; Britta Kleemann
University of Cape Town, South Africa

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Objective South Africa has the second highest incidence of malignant melanoma skin cancer in the world. Increased melanoma resistance to therapies have led to a call for different treatment options of which photodynamic therapy (PDT) represents one.

Methodology Using an in vitro tissue model using 3 metastatic melanoma cell lines, we employed cell viability assays to optimise the EC50 values which were then used to expose the cells. Further analyses involved cell death analysis using FACS, morphological analyses using electron microscopy. Protein expression (Western blot analysis) and co-localization studies (laser scanning confocal microscopy) were used to verify cellular responses to the novel treatment.

Results Using the photosensitizer hypericin, our cell viability studies showed that hypericin-PDT effectively killed melanoma cells at a dose of $3\mu\text{M}$. Melanoma cell morphology after 24h treatment revealed rounded cells however, few contained apoptotic nuclei. FACS analyses revealed an initial necrotic response, followed by a late apoptotic/necrotic response. Transient transfections with a range of organelle-specific GFP plasmids and PDT correlated with an intracellular lysosomal co-localization pattern. Results further showed that hypericin did not co-localize with the endoplasmic reticulum, golgi or mitochondria. The involvement of the lysosomal pathway suggests the importance of melanin-containing organelles in cell death resistance in melanoma cells. This is novel and may point to a more tailored approach to treating melanoma.

Conclusion Overall, we propose from the results of this study contribute towards the use of hypericin-PDT as a potential adjunctive therapy in the treatment of metastatic, malignant melanoma.

WORK- SHOP

Dawsey, Sanford

CURRENT SCREENING AND EARLY DETECTION OF ESOPHAGEAL CANCER

Pathology II
14h30–17h30
Friday
22 November
2013

Sanford Dawsey*
US National Cancer Institute, United States

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Esophageal cancer (EC) is the sixth most common cause of cancer death in the world, killing over 400,000 people each year. Over 80% of EC cases occur in developing countries and in these countries over 90% of cases are esophageal squamous cell carcinomas (ESCC). Especially high risk populations for EC are found in two geographical belts, across Central Asia and from Eastern to Southern Africa.

EC has a very poor prognosis (5-year survival <5% in most developing countries), which is primarily due to late diagnosis, which is caused by the late development of symptoms. To reduce EC mortality, we need to develop and implement early detection and treatment strategies that are acceptable to asymptomatic high-risk people and can identify curable precursor and early invasive lesions.

In this talk I will review the five components of the early detection and treatment program for ESCC that we have helped develop in China, including (i) identification of the clinically important precursor lesion (PCL) (the target for screening); (ii) primary screening methods to identify people with PCLs; (iii) endoscopic localization of these PCLs; (iv) staging of the PCLs; and (v) endoscopic treatment of these PCLs. Then I will discuss possibilities for similar programs in high-risk populations in Africa.

WORK- SHOP

Denny, Lynette CANCER IN AFRICA

Lynette Denny*
University of Cape Town, South Africa

**Cancer
advocacy
masters training**
08h30–17h30
Wednesday
20 November
2013

Correspondence Denny, Lynette
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Cancer in Africa is a neglected non-communicable disease and only recently has received attention on the health agenda. Nearly 700 000 people are diagnosed with cancer in Africa per year, with a very high case-fatality rate due to late presentation and/or lack of access to appropriate anti-cancer therapies. There is a lack of standardisation of training of health care professionals in cancer prevention, diagnosis, management and palliative care. The commonest cancer among women in Africa is cervical cancer followed by breast cancer (although these data are reversing in some countries) and among men, the most common cancers are prostate, Kaposi's sarcoma and non-Hodgkin's lymphoma. Cancer diagnosis and therapy are expensive and approximately 22% of countries in sub-Saharan Africa have no access to anti-cancer therapies at all. Where radiation facilities exist they are hopelessly inadequate for the population served. In addition, palliative care is limited to a few countries and settings and oral morphine is only legally available in about 11% of countries. Statistics around cancer care and cancer registries are also very limited and unreliable. Placing cancer on the political health agenda is essential if we are to prevent significant suffering among Africans diagnosed with cancer.

WORK- SHOP

Denny, Lynette

**TRAINING HUMAN RESOURCES IN THE CONTEXT
OF NATIONAL ROLL-OUT OF CERVICAL SCREENING**

**Cervical
cancer**

prevention II

11h00–13h00

Thursday

21 November
2013

Lynette Denny*

University of Cape Town, South Africa

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Establishing a system for cervical cancer screening is complex and requires resources at multiple levels to be effective. Historically screening has been cytology-based, a system that required a mechanism for taking Pap smears, having them delivered to a laboratory, interpreted, the result sent back to the primary clinic or patient and women with abnormal smears then recalled for colposcopy, followed by histological assessment, treatment and follow-up. Where applied correctly this system reduced the incidence of cervical cancer significantly.

However, no developing countries have managed to either initiate or sustain cervical cancer screening programmes due to the lack of robust health care infrastructure and competing health needs. With modern approaches using different screening tests such as HPV DNA testing or Visual Inspection with Acetic Acid (VIA), along with the screen and treat approach, it is envisioned that a less complex infrastructure will be required. This assumption however has many caveats, even if the need for expensive laboratory support is not required. Women still need to be educated and encouraged to go for screening. Facilities for screening and training of personnel are still required, and for subjective tests like VIA, training needs to be on-going with some form of reliable quality control in place. In addition, treatment needs to be carefully monitored for effectiveness and women need to be followed up to ensure eradication of disease.

Further systems need to be in place to monitor impact on cervical cancer incidence and mortality, as well as extent of coverage of the target population. Even screen and treat requires training at multiple levels and should not be seen as a 'soft option' compared to the complexity of cytology based screening programmes.

POSTER 062

Der, Edmund Muonir

POSITIVE TUMOUR MARGINS IN WIDE LOCAL EXCISIONS (LUMPECTOMIES) BIOPSIES: A 10-YEAR RETROSPECTIVE STUDY

Sunday
24 November
2013

Edmund Muonir Der*; Simon Naaeder; Joel Na Clegg-Lamptey;
Solomon Quayson; Edwin K Wiredu; Richard K Gyasi
Korle-Bu Teaching Hospital, Ghana

Correspondence Der, Edmund Muonir
Email: maadelle@yahoo.com

Background The safety of wide local excision as a standard surgical option for early stage breast cancer management in Ghana has not been evaluated. The aim of this study was to use retrospective histopathological descriptive study to evaluate the prevalence of positive tumour margins in wide local excision specimens and offer recommendations.

Study design We reviewed 147 breast lumps, following wide local excision, which were received in the Department of pathology, for positive tumour margins. The data was analyzed using SPSS software (version 16).

Results A total of 2,751 female breast cancers were diagnosed during the study period, of which 147 (5.3%) were from wide local excisions (Lumpectomies). Thirty-one (21.0%) had positive tumour margins. The mean age of women with positive margins was 53.4 (SD=17.1) years. The mean size of primary tumour was 4.0 (SD=2.1) cm, majority 16(53.0%) were greater than 2.0cm, but less than or equal to 5.0cm (T2). A total of 26 (83.4%) of these tumours were invasive ductal carcinomas (NOS), 24 (92.3%) of which had combined Bloom–Richardson grading, many 10(41.7%) being grade 1.

Conclusion Our study shows that, 21.0% of all lumpectomies had positive tumour margins, a figure that is much lower than the 44.4% found in excised breast lumps which were clinically benign but were found to be malignant at histology. Tumours with positive margins in this study were large, 4.0cm (T2), and common in relatively young women. Tumours of this size are therefore not suitable for wide local excision.

Sunday
24 November
2013

Edmund Muonir Der*; Jonathan Dakubo; Joel Na Clegg-Lamptey;
Solomon Quayson; Edwin K Wiredu; Richard K Gyasi
Korle-Bu Teaching Hospital, Ghana

Correspondence Der, Edmund Muonir
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Background One of the most important areas in breast cancer treatment is understanding prognosis and being able to select patients who are at highest risk of mortality from the disease. The aim of this study was to use a retrospective descriptive analysis to stratify breast cancers in Ghanaian women into prognostic risk categories, using mastectomy specimens.

Materials and Methods A review of confirmed breast cancer cases in our institution from January 2002 to December 2011 was conducted. Data was analyzed using SPSS software (Version 18). Associations between size of primary tumour, histologic subtype, grade, nodal involvement, TNM stage, and positive deep resection margin were calculated. Patients were grouped into prognostic categories using the Nottingham's prognostic index (NPI).

Results A total of 1098 breast cancers were diagnosed in mastectomy specimens. The mean age was 51.6 years. The mean size of primary tumours was 5.8 cm (T3) and showed significant positive association with the histologic type (Spearman's $p=0.002$), histologic grade ($p=0.001$), nodal involvement ($p<0.000$), and the TNM Stage ($p<0.000$). Using the Nottingham's prognostic index to stratify the breast cancers into prognostic significance showed that majority 57.2% (381/666) of the women at presentation had poor prognosis which translates into very low expected 5-year survival rate of 50%.

Conclusion Breast cancer in Ghanaian women from previous studies has been shown to have poor prognosis. Stratifying women with breast cancer using the Nottingham's prognostic index confirmed that many women with breast cancer in Ghana have poor prognosis at presentation which translates into very low 5-year survival rate.

Sunday
24 November
2013

Edmund Mounir Der*¹; Jehorant T Anim¹; Richard K Gyasi¹; Tettey Yao¹;
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Background Women with African ancestry in the United States and in continental Africa have been found to have exceptionally increased frequencies of TNBC, prompting speculation that this risk may have an inherited basis and may at least partially explain breast cancer outcome disparities related to racial/ethnic identity. Efforts to document and confirm the breast cancer burden of continental Africa have been hampered by limited availability of immunohistochemistry resources in this region of the world. Our goal was to evaluate the breast cancers diagnosed in one of the largest health care facilities in western Africa, and to compare the frequencies as well as risk factors for TNBC versus non-TNBC.

Methods We reviewed all breast cancer cases that had immunohistochemistry (Novolink Detection system), in 2010.

Results The overall study population of 223 breast cancer cases was relatively young (median age 52.4 years), and most had palpable tumors larger than five centimeters in diameter. More than half were TNBC (130; 58.3%). We observed similar frequencies of young age at diagnosis, stage at diagnosis, and tumor grade among cases of TNBC compared to cases of non-TNBC.

Conclusion Ghanaian breast cancer patients tend to have an advanced stage distribution and relatively young age at diagnosis. The triple negative molecular marker pattern is the most common seen among these women, regardless of age, tumor grade, and stage of diagnosis. Additional research is necessary regarding the causes of TNBC, so that we can elucidate the reasons for its increased prevalence among women with African ancestry.

WORK- SHOP

Diagne, Ndèye Marième

LE CANCER DU SEIN A L'HOPITAL PRINCIPAL DE DAKAR ETUDE DESCRIPTIVE A PROPOS DE 35 CAS

**Free
communication
of abstracts IV**
14h30–17h30
Saturday
23 November
2013

Ndèye Marième Diagne*
Hopital Principal de Dakar, Senegal

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Objectifs Déterminer les caractères épidémiolo-cliniques, paracliniques et évolutifs de ce cancer à l'Hôpital Principal de Dakar.

Malades et method Etude rétrospective de janvier 2008 à avril 2012 (4 ans) incluant tous patients présentant un cancer du sein à l'Hôpital Principal de Dakar diagnostiqué par l'anatomopathologie. Les dossiers incomplets étaient exclus, les données recueillies sur fiche d'enquête et exploitées par fichier Excel version 2007.

Résultats Trente cinq ont été colligés, comprenant 34 femmes et un homme avec un âge moyen de 49 ans (extrêmes 21 et 77 ans). Le sein gauche était atteint dans 15 cas, le sein droit chez 14 malades et 6 patientes présentaient une localisation tumorale bilatérale. Les signes cliniques étaient représentés par la douleur mammaire (24 cas), la fièvre (7 cas) et l'altération de l'état général (12 cas). A la biologie, étaient notées: l'anémie (20 cas), l'hyperleucocytose (20 cas) tandis que la calcémie était constamment normale. Le marqueur Ca 15-3 était élevé dans 11 cas. L'imagerie objectivait une prédominance des lésions classées: ACR 4 (16 cas) . Des métastases étaient notées dans 14 cas et leur siège était: pulmonaire (8 cas), osseux (7 cas), cérébral (3 cas), péritonéal (1 carcinose). L'anatomopathologie confirmait un carcinome canalaire infiltrant chez tous les malades. L'immunohistochimie était réalisée dans 19 cas. Les récepteurs hormonaux étaient positifs dans 11 cas et négatifs pour 7 malades. La tumeur était SBR2 (15 cas) et une surexpression HER2 notée dans 4 cas. Il s'agissait de tumeur classée T4 (22 cas) dont 12 étaient T4 N1 M0. Une mastectomie était réalisée chez 25 patientes. La chimiothérapie était néo adjuvante ou adjuvante dans 22 cas et palliative dans 6 cas. Les protocoles 3 FEC 3 Taxotère (6 cas) ; Taxotère – Doxorubicine (6 cas) ; FEC 100 (5 cas) ont été réalisés ; l'hormonothérapie prescrite dans 14 cas, la radiothérapie réalisée pour 8 malades. Les effets indésirables étaient : des nausées ou vomissements (22 cas) ; 8 cas de neutropénie fébrile. L'évolution était marquée par la rémission (6 cas) ; la stabilisation (19 cas) ou la progression (14 cas) avec 6 décès et une survie de 7 mois à 10 ans (moyenne de survie 37 mois).

Conclusion Le cancer du sein est une affection de la femme adulte mais de diagnostic souvent tardif. Les résultats thérapeutiques sont prometteurs mais limités par le coût onéreux des soins.

Saturday
23 November
2013

Ndeye Marième Diagne*
Hopital Principal De Dakar, Senegal

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Objectifs Décrire les aspects épidémiolo-cliniques, paracliniques et évolutifs des CCR à l'HPD.

Malades et method Etude sur 11 ans: rétrospective (Janvier 2001–Décembre 2011) et prospective (Janvier 2012–Mars 2013), incluant les malades présentant un CCR à l'examen anatomopathologique et admis dans les services médicaux l'HPD. Les dossiers incomplets étaient exclus et les données recueillies sur fiche d'enquête et exploitées avec Excel.

Résultats Etaient colligés 122 dossiers, 72 hommes et 50 femmes, soit 1,4 de sex-ratio avec un âge moyen de 59 ans (extrêmes : 23–86 ans). L'état général était conservé dans 89 cas et la symptomatologie douloureuse dans 44 cas. Des métastases étaient trouvées dans 49 cas avec comme sièges: hépatique (n = 36), pulmonaire (n = 7), péritonéale (n = 6), cérébrale (n = 2). L'anatomopathologie confirmait 111 cas d'adénocarcinome. Le colon était siège de 89 cas, le rectum 23 cas. Le stade tumoral 3 était trouvé dans 41 cas et le stade 4 dans 55 cas. La chirurgie était curative dans 76 cas et palliative dans 7 cas. La chimiothérapie était adjuvante (n = 25) ou palliative (n = 32) et une 2ème ligne était administrée dans 12 cas alors que la radiothérapie était réalisée dans 9 cas. Cette chimiothérapie a permis: une diminution des douleurs (n = 29), une réponse partielle (n = 10 cas), une stabilité (n = 28) ou une progression (n = 38). L'évolution était marquée par 44 cas de décès, 25 perdus de vue et 52 vivants sur un délai moyen de suivi 21 mois (extrêmes: 1 mois à 8 ans et 7 mois).

Conclusion Les CCR sont fréquents à l'HPD et prédominent chez l'homme d'âge mûr. Le diagnostic est posé à un stade avancé malgré un état général conservé. L'évolution est souvent défavorable malgré une chimiothérapie réalisée dans la moitié des cas.

WORK- SHOP

BIG CAT grants II

11h00–13h00
Friday
22 November
2013

Dickens, Caroline

SURVIVAL FROM AND GENETIC SUSCEPTIBILITY TO INVASIVE BREAST CARCINOMA IN HIV+ AND HIV-BLACK SOUTH AFRICAN WOMEN

Caroline Dickens*¹; Maureen Joffe²; Herbert Cubasch²; Raquel Duarte²; Valerie McCormack¹

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Breast cancer is the most commonly diagnosed cancer in sub-Saharan African women and, although incidence rates are less than half those of Western Europe or America, mortality rates are remarkably similar. Few studies have examined either 5-year survival rates or genetic predispositions to known breast cancer risk factors in indigenous African populations.

In a cohort of over 1000 mainly black, female patients newly diagnosed with histologically confirmed invasive breast cancer at the Chris Hani Baragwanath Academic Hospital (CHBAH) Breast Clinic, 67% of tumours were ER and/or PR positive and 21% triple (ER, PR and Her2) negative. HIV prevalence was 18%, similar to that of the general population. In this study we aim to retrospectively examine survival from and recurrence of breast cancer in women who attended the CHBAH Breast Clinic by investigating treatment, compliance to treatment and survival probabilities by stage at diagnosis and determining if these differ between HIV positive and negative patients. Furthermore, numerous single nucleotide polymorphisms (SNPs) associated with breast cancer and its risk factors, such as mammographic density and endogenous hormones, have been identified and validated in European, Asian and African American populations but not in indigenous African populations.

We aim to conduct a pilot study to determine the association of candidate SNPs in breast cancer patients of South African ancestry. The projected increase in breast cancer incidence rates in the coming decades means that a better understanding of disease progression and survival is imperative to improve patient management and to reduce mortality.

WORK- SHOP

HPV cervical
cancer network
in Francophone
Africa
14h30–17h30
Thursday
21 November

Didi-Kouko Coulibaly, Judith

PROJETS ET PROTOCOLES CONCERNANT LE CANCER DU COL DE L'UTERUS ET HPV EN CÔTE D'IVOIRE: RESULTATS DU PROGRAMME NATIONAL DE LUTTE CONTRE LE CANCER

Judith Didi-Kouko Coulibaly*¹; Jean-Claude Kouassi Comoe²; Charles Boni Amoussou Gbedon³; Oumar Toure³; Apollinaire Horo*⁴; Innocent Adoubi⁵
¹Service de Cancérologie CHU de Treichville/Programme National de Lutte Contre le Cancer, Cote D'Ivoire; ²Prog. Nat. de Lutte Contre le Cancer, Cote D'Ivoire; ³Jhpiego/CI, an affiliate of Johns Hopkins University, Cote D'Ivoire; ⁴Service de Gynécologie, CHU de Yopougon (Abidjan), Cote D'Ivoire; ⁵Prog. Nat. de Lutte Contre le Cancer: Directeur Coordonateur, Cote D'Ivoire

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Introduction Depuis 2009, le Programme National de Lutte contre le Cancer (PNLCa) en Côte d'Ivoire (CI) a initié plusieurs projets de prévention du cancer du col de l'utérus (CCU) incluant le dépistage, la vaccination mais également le génotypage des papillomavirus humains (HPV).

Objectif Présenter l'état d'avancée de la lutte contre le CCU en CI.

Méthodologie 2 principaux projets ont été conduits par le PNLCa: étude rétrospective de 2005 à 2009 sur 250 blocs de paraffine, visant à déterminer le génotypage des HPV; phase pilote de dépistage par l'inspection visuelle après application d'acide acétique (IVA) et traitement des lésions précancéreuses (2009–2013).

Résultats Le génotypage des HPV n'a pas été contributif en raison d'un problème de conservation des blocs. Le dépistage a concerné 34 sites fonctionnels et a porté sur 15789 femmes. 166 prestataires de soins ont été formés dont 11 formateurs nationaux. 1027 (6,5%) lésions précancéreuses ont été découvertes dont 343 (33,4%) non éligibles à la cryothérapie en raison de la taille des lésions. Sur les 684 femmes restantes, 567 (82,9%) ont bénéficié de la cryothérapie. 117 patientes ont eu une résection à l'anse diathermique.

Perspectives Étude prospective préliminaire visant à déterminer le génotypage HPV sur 500 patientes; projets de vaccination contre le HPV dont un concernant 1000 jeunes filles scolarisées dans le primaire (Septembre 2013) et un autre concernant 10 000 jeunes filles scolarisées dans le secondaire (Avril 2014); passage à échelle du dépistage par l'IVA.

Conclusion La prévention du CCU est capitale. Le dépistage par l'IVA est réalisable, efficace et accessible financièrement dans nos pays à ressources limitées. Quant à la vaccination, la prise en charge par nos autorités serait d'un apport considérable. La détermination préalable du génotype des HPV permettra de mieux cibler les objectifs.

WORK- SHOP

Diop, Mamadou

GENOTYPAGE HPV POUR LA PREVENTION DU CANCER DU COL AU SENEGAL

**HPV cervical
cancer network
in Francophone
Africa**

14h30–17h30

Thursday

21 November

Mamadou Diop*¹; Ndeye Coumba Toure²

¹Cancer Institute, Senegal; ²Bacteriology and Virology (Cheikh Anta Diop University), Senegal

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Objectif L'objectif de cette étude est de connaître la prévalence des types spécifiques de HPV et la fiabilité diagnostique des tests de dépistage des lésions précancéreuses cervicales chez des femmes sénégalaises de plus de 35 ans pour aider à la mise en place d'un programme approprié de prévention du cancer du col.

Matériel et méthode 5.200 femmes de 35 ans et plus, éligibles, seront dépistées pour inclure 1200 femmes réparties équitablement selon les 4 catégories de résultats du frottis cervico-utérin. Elles auront bénéficié d'un frottis cervico-utérin et d'un typage VPH sur un seul et même prélèvement en milieu liquide. Les femmes seront recrutées sur une période de 2 ans et vues trois fois. La première fois pour le frottis, la deuxième pour la présentation des résultats du frottis et la réalisation de la coloscopie avec biopsie, et enfin la troisième visite pour la présentation des résultats de la biopsie et la prise en charge de la lésion éventuelle du col.

Résultats attendus Des informations complètes seront obtenues pour 860 femmes compte tenu des résultats des précédentes études de prévalence VPH et des 10% de perdues de vue. En plus de l'analyse des données épidémiologiques, la prévalence des VPH à haut risque oncogène en fonction du diagnostic histologique sera précisée. Les valeurs prédictives du frottis sur milieu liquide et du test ADN-VPH seront comparées. Les génotypes de VPH associés à la présence du cancer invasif du col utérin seront déterminés.

Conclusion La prévention du cancer du col doit tenir compte de la prévalence de l'infection HPV et des types de HPV oncogènes les plus fréquents dans les lésions cervicales. De plus, plusieurs études ont montré la faisabilité et la précision des tests HPV comme technologie alternative au frottis dans le contexte de ressources limitées. Il est donc important de préciser la prévalence VPH et d'estimer les performances du test VPH chez les femmes sénégalaises.

WORK- SHOP

Diop, Papa Saloum CURRENT SURGICAL CHALLENGES IN AFRICA

Breast cancer:
focus on
surgery
11h00–13h00
Saturday
23 November
2013

Papa Saloum Diop*
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The breast is a hormone-dependent sexual organ, closely linked to the image of the woman's body. This explains the important psychological impact of all diagnostic and therapeutic procedures. Breast cancer is a public health problem in Africa and the issue of its support seems to be shared.

In Senegal breast cancer is the second gynecological malignancy after cervical cancer, represents 18% of all cancers with an estimated incidence 11.6 per 100 000 women. The profile of our patients is determined as follows: mean age 47 years (range 20 to 86 years), 60.4% of stage III and IV at diagnosis. Surgical response to its advanced stages is radical surgery after chemotherapy or surgery immediately as clean for ulcerated and infected tumors. The latissimus dorsi flap is often used to cover the defect. Axillary dissection for advanced tumors has its own morbidity is poorly tolerated: the lymphedema.

Awareness programs and screening bring us a lot of "good patients" presenting subclinical lesions and early stages, asylum conservative treatments. And new challenges for the surgery of breast cancer in Africa will be mastering the concept of conservative treatment and its corollaries: the sentinel node and oncoplastic surgery.

WORK- SHOP

Dolman, Lena

META-ANALYSIS OF THE EFFICACY OF COLD COAGULATION AS A TREATMENT METHOD FOR CERVICAL INTRAEPITHELIAL NEOPLASIA

**Cervical
cancer**

prevention I

09h00–10h30

Thursday

21 November

2013

Lena Dolman*¹; Catherine Sauvaget²; Richard Muwonge²;
Rengaswamy Sankaranarayanan²

¹McGill University, Canada; ²Screening Group, IARC-WHO, France

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Cold coagulation is an ablative method for treatment of cervical intraepithelial neoplasia (CIN). Despite reports of efficacy against all grades of CIN (CIN1–3), cold coagulation has been infrequently used since the 1980s, and has been increasingly replaced by surgical/excisional methods. However, the portability and low resource requirements of the cold coagulator device make it ideal for treatment in certain settings, including African countries and field clinics.

This talk will present the results of a systematic review and meta-analysis of randomized control trials and clinical studies on cold coagulation efficacy and acceptability for CIN treatment. Meta-analysis of the treatment outcomes of 4,569 CIN1–3 patients after treatment with cold coagulation demonstrated a cure rate of 94% (95% CI, 91–96%) for CIN1-3 lesions. Side effects and adverse effects were infrequent and mild, and treatment did not impair subsequent fertility.

Our results suggest that cold coagulation cure rates are comparable to those of other excisional and ablative methods in use for CIN treatment, and that cold coagulation is an appropriate method for use against all grades of CIN. This method may be of particular relevance in resource-limited or field-based settings, and for patients wishing to retain fertility.

PLENARY

Dreyer, Greta

SURGICAL TREATMENT FOR GYNAECOLOGIC CANCER WITH LIMITED OR NO RADIATION SERVICES

Gynaecological cancers

09h10–10h30

Sunday

24 November

2013

Greta Dreyer*

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Introduction Treatment for cancer of the lower female genital tract rely heavily on radiation – a service not readily available in many African countries. Rather than denying women treatment, the focus could be on providing surgery where and when it can benefit the patient.

Surgery alone Many patients can be treated in a curative way with surgery alone, with adjuvant therapy improving local control and survival rates. This includes many patients with bulky early stage cervical cancer and non-metastatic vulva cancer. Surgery alone can improve survival and symptoms even if not ultimately curative. The outcomes should be compared with no therapy for women in rural Africa where no alternatives are available. Where adjuvant treatment is difficult to access, surgical radicality must be prioritised.

Alternative adjuvant therapy In high risk patients, chemotherapy has been demonstrated to offer a reasonable and effective adjuvant treatment after surgery and should be considered when available. With only external radiation available, external boost should be used in the place of brachytherapy; understanding that the effectiveness is less and the side-effects are more.

Neo-adjuvant therapy Chemotherapy plays a role to downstage patients with lower genital tract cancer before surgical resection is attempted. To optimise cost effectiveness, it should be reserved for patients in inoperable stages, but not very late stages. Surgery after chemotherapy poses unique risks; more surgical expertise is required than for primary surgery.

Early diagnosis Treatment of early stage gynaecologic cancer is cheaper, more often curative and more cost-effective than treatment of late stage cancer. When radiation treatment is limited, early diagnosis must be prioritised, but only when surgery is feasible.

Conclusion Many women in Africa can be treated effectively without radiation services, provided surgical skills are present and disease is diagnosed in relatively early stages.

It has recently been discovered that cancer shares a link with metabolic diseases, including that of cardiovascular disease, diabetes, amongst others, where common sets of genes show similar gene expression. There is thus interest to investigate current therapies for metabolic diseases as possible anti-cancer agents.

The Renin-Angiotensin System (RAS) regulates blood pressure and cardiovascular homeostasis through Angiotensin Converting Enzyme 1 (ACE-1) and its homolog ACE-2. RAS has also been implicated in the progression of various cancers due to the increased action of the vasoconstrictor, Angiotensin II, which requires ACE-1 and specifically the Angiotensin Type 1 Receptor (AT1R) for its function. In this study, we aim to investigate a potential association of the endogenous ACE-1 and ACE-2 enzymes in cervical cancer.

Western blot results show that ACE-1 and AT1R protein expression are up regulated in cervical cancer cell lines compared to normal and transformed cells. In addition results from a spectrofluorimetric, ACE-1 specific enzyme assay, show that ACE-1 is more active in cancer compared to normal cells and that treatment with ACE-1 inhibitors, Captopril and Lisinopril, reduce this activity. Furthermore, cell proliferation assays show that the treatment of cervical cancer cells with these ACE-1 inhibitors, significantly reduce cancer cell viability. ACE-2 expression on the other hand, was decreased in cancer compared to normal cells suggesting decreased activity in cancer cells.

These results suggest that elevated ACE-1 expression associates with cancer and that the inhibitors of ACE-1 function or activators of ACE-2 function could have potential as anti-cancer therapies.

WORK- SHOP

Durosinmi, Muheez

IMPROVED SURVIVAL IN PATIENTS WITH AFRICAN BURKITT LYMPHOMA (BL): EXPERIENCE IN ILE-IFE, NIGERIA

**Free
communication
of abstracts III**

11h00–13h00

Saturday

23 November

2013

Muheez Durosinmi*¹; Olugbenga Adeodu¹; Anthony Oyekunle¹;
Ramoni Bolarinwa¹; Olufemi Adefehinti¹; Lateef Salawu¹
¹Obafemi Awolowo University, Nigeria

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Objective The objective of this study was to compare treatment outcome of self-sponsored BL patients managed at Ile-Ife, Nigeria between 1987 and 2000 with those treated between 2004 and 2012 under a sponsored multicentre international study using COM regimen.

Methods Consenting BL patients enrolled between Dec 1986 and Sep 2000—group A, and between Sept 2004 and July 2011—group B. Group A had COM/COMP regimens with cytarabine or MTX as intrathecal therapy. Group B had COM regimen as first line therapy and combination of ifosfamide (and mesna), etoposide and cytarabine as 2nd line for early relapse; with cytarabine and MTX as intrathecal therapy. OS and EFS were computed with Kaplan-Meier technique for group B from the date of induction until the patient died or was censored. The high default rate of 88% of group A patients precluded OS and EFS computation.

Results Disease characteristics, M:F ratio of 1.8:1, median ages at onset of 9 and 8 years for groups A and B, respectively were similar. 36 (16.8%) of group A patients had no chemotherapy, 21 (9.8%) were lost to toxic deaths within 2 weeks of admission and 88% of 157 evaluable patients defaulted before analysis (40 & 13 in CR and PR respectively) and 4 were alive 6–164 (median, 61) months post induction therapy. For group B, OS was 61.4% and 57.5% at 12 and 24 months; and EFS at 12 and 24 months were 58.3% and 53.4%.

Conclusions The better survival obtained for group B patients was due to availability of chemotherapy, supportive therapy and efficient patient follow up. The study was supported by the International Network for Cancer Treatment and Research (INCTR), Institut Pasteur, Rue Engeland 642, B-1180 Brussels, Belgium. INCTR Study Protocol 06-09.

PLENARY

Durosinmi, MA

MYELODYSPLASTIC NEOPLASMS IN AFRICA: CHALLENGES IN DIAGNOSIS AND TREATMENT

Haematology

09h10–10h30

Saturday

23 November

2013

MA Durosinmi*

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Objective The objective of this presentation was to bring into focus the problems associated with managing myelodysplastic syndromes (MDS) in Africa in the face of inadequate diagnostic options and challenges of classification and institution of appropriate therapy.

Methods A general review of published reports on MDS in different parts of Africa was undertaken. The available publications were reviewed for diagnostic approach, classification method (FAB and/or WHO) and treatment modalities: 'specific' and supportive, other than red cell transfusion.

Results Myelodysplastic syndromes are not uncommon in Africa and the clinical features are similar to published reports from other parts of the world. Diagnosis is limited to morphologic examination of peripheral blood and marrow cells; facilities such as cytogenetics and immunophenotyping of tumour cells are very limited, especially in the majority of sub-Sahara African countries. FAB classification is the norm in most centres. The more all-encompassing WHO classification technique was limited to few centres in the North and South Africa, it was therefore impossible to stratify patients into risk groups based on the now well established International Prognostic Scoring System (IPSS) in most of the centres.

Conclusions Paucity of more reliable diagnostic facilities for MDS and therefore proper disease classification make cost-effective treatment of MDS a mirage in Africa. Concerted efforts must be made to upgrade levels of haematology/pathology laboratories in sub-Sahara Africa to high-tech standards with facilities for immunohistochemistry, immunophenotyping, cytogenetics and molecular pathology techniques.

WORK- SHOP

Dzamalala, Charles

ECOLOGICAL ANALYSIS OF ENVIRONMENTAL RISK FACTORS AND ESOPHAGEAL CANCER INCIDENCE RATES IN MALAWI

Charles Dzamalala*¹; Dumisile Huwa¹; Valerie McCommack²

¹Malawi Cancer Registry, Malawi; ²IARC, France

**Free
communication
of abstracts V**
11h00–13h00
Sunday
24 November
2013

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Background Malawi has the third highest age-standardized incidence rates of oesophageal cancer worldwide [1], mostly of the squamous cell cancer type. The country lies within a high-incidence belt of oesophageal squamous cell cancer (ESCC) in the East Southern part of Africa. Whilst tobacco chewing, smoking and alcohol consumption contribute to the ESCC burden in this belt [2–4], other factors are likely to play a role as incidence rates of this cancer are 10-fold higher than in West Africa. Other established risk factors for ESCC include consumption of hot beverages [5,6], exposure to polyaromatic hydrocarbons (PAHs) [7,8], diets low in fruits and vegetables, low socio-economic group and poor oral hygiene [9]. Micronutrients deficiencies of folate, riboflavin, zinc and selenium [10] and excess silica are also believed to increase ESCC risk [11]. Aetiologic studies of risk factors for ESCC in Malawi to date have shown a positive association between ESCC and food habits, smoking and alcohol intake [12]. This has helped to explain why ESCC is more common in men than women: these habits are traditionally and culturally associated with males in Malawi and the rest of the Eastern and Southern African regions [13]. Other environmental factors are likely to contribute to these high ESCC rates, especially in women. Among those factors in Malawi are selenium deficiency and environmental PAH exposure. Selenium (Se) deficiency is widespread in Malawi [14]. This trace element is obtained from plants, meat, eggs, some nuts, and fish, but food-selenium content is very variable and depends on the selenium uptake and availability in and conditions (e.g. pH) of soils on which they were grown. Chilimba et al [14], based on a comprehensive survey of soil and maize Se levels in 88 field sites across Malawi, have recently estimated the average Se intake from maize ranges from 4.8 ug Se per person per day in Karonga district (Northern Malawi), to 16.6 ug in Salima (Central Malawi), whilst recommended daily allowance is 55 ug. Over 60% of this Se is sourced from maize, and ecological studies have demonstrated inverse correlations between soil or plasma selenium levels and ESCC rates [15], however no such studies have been conducted in Malawi.

Methods Using the population-based cancer registry in Blantyre, Malawi, we performed an ecological analysis of district-level ESCC incidence rates in relation to corresponding area level indicators of soil and maize Se levels, as well as of geographical indicators. Cancer incidence data for a period of up to 10 years was used. Poisson regression of 5-year age band and sex-specific numbers of ESCC cases, with numbers of exposed defined by the corresponding population will be worked out. ESCC regression rates on area-level indicators will be utilised, with adjustment for age group, sex and year of diagnosis.

Preliminary results The analyses are on-going.

WORK- SHOP

**Free
communication
of abstracts III**
11h00–13h00
Saturday
23 November
2013

Edge, Jenny

THE BREAST CANCER COURSE FOR NURSES: TRAINING FOR NURSES IN A PRIMARY SETTING IN SOUTHERN AFRICA

Jenny Edge*
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Introduction In many places in Southern Africa, the first contact for women with breast complaints is with a nurse in a primary clinic. There has been little formal breast training for nurses as the emphasis has been on the management of infectious diseases. The WHO predicts that the mortality due to non communicable diseases in the developing world will increase by 17% in the next 10 years. This will have a major impact on an already overburdened system.

Aim The Breast Course for Nurses (BCN) combines distance education with a residential course. The emphasis is on learning rather than teaching. The BCN equips nurses with the skills to manage women with breast problems.

Structure of the course The course starts with a single introductory day. The first 2 modules are discussed. A further 6 modules are sent out monthly followed by open book MCQs. The MCQs have to be completed prior to the 3-day residential course. The 3-day residential course combines lectures, which recap the modules, with practical sessions. The practical sessions allow input from local role players.

The topics covered include changes to the normal breast, clinical assessment of the breast, imaging, benign breast changes, introduction to cancer, management of breast cancer, palliative care, lymphedema management and community out reach programmes. Although the core content will remain constant, the input for the practical sessions will vary regionally.

Sustainability of the project BCN is a registered, audited NPO and is dependent on private sponsors. A fund raising committee has been set up to ensure sustainability.

Future projects Tailor made course for different groups of primary health care workers, courses in neighboring countries and the increasing use of technology to allow dissemination of information.

WORK- SHOP

Free
communication
of abstracts I
11h00–13h00
Friday
22 November
2013

Ekujumi, Olarenwaju

RELATIONSHIP BETWEEN HIGH RISK HUMAN PAPILLOMAVIRUS GENOTYPES AND CERVICAL CYTOLOGY IN HIV POSITIVE WOMEN IN LAGOS UNIVERSITY TEACHING HOSPITAL

Olarenwaju Ekujumi*¹; Rose Anorlu²; Adekunbiola Banjo²

¹Lagos University Teaching Hospital, Nigeria; ²University of Lagos/Lagos
University Teaching Hospital, Nigeria

Correspondence Ekujumi, Olarenwaju
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Introduction This study aimed to determine the relationship between high risk human papillomavirus (HR-HPV) genotypes and cervical cytology of HIV positive women.

Methods Two hundred HIV positive women attending AIDS Prevention Initiative of Nigeria (APIN) Clinic in Lagos University Teaching Hospital during the period 1st June to 31st August 2012 were studied. Cervical smears were taken using liquid-based cytology; and HPV DNA detection using the automated HybriMax device which uses both DNA amplification and HybriBio's proprietary flow through hybridization technique to simultaneously identify 21 HPV genotypes, including 5 low-risk types (types 6, 11, 42, 43, and 44), 14 HR types (types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68), and 2 intermediate-risk types (types CP8304 and 53).

Results HR-HPV DNA was detected in 75 (37.5%) of the 200 women. Multiple (2–5) HPV types were found in 23 (30.7%) of the HPV-infected women. The most prevalent HPV types were HPV 52 (21.1%), HPV 31 (16.5%), HPV 58 (13.8%), HPV 18 (10.1%) and HPV 35 (9.2%). HPV 16 was found in only 1.8 % of the participants. 192 smears were satisfactory, 67.2% normal, ASCUS 13.5%, LSIL 2.6%, ASC-H 3.6%, HSIL 12.0% and 1.0% as squamous cell carcinoma (SCC). Prevalence of HSIL was higher in HRHPV positive than in HRHPV negative 14.7% vs. 9.6%. HPV31, 35, 52 and 66 were predominant in women with abnormal cervical smear. The two cases of SCC were all HR-HPV positive with HPV 35, 52 and 66 present in one of them and HPV 35 in the other.

Conclusion This study has shown that the interaction between HIV and HPV in the development of benign and malignant neoplasm of the cervix is a complex one. Larger studies on HPV types in invasive cervical cancer in HIV positive women are needed.

Friday
22 November
2013

Amany Elamin*¹; Hongxia Zhu²; A M Elahassan¹; Ningzhi Xu³;
Muntasir E. Ibrahim¹

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Objectives Breast and cervical cancers account for approximately 50% of all types of cancer in Sudanese women. The aim of the present study was to confirm our previous preliminary proteomic data identified Peroxiredoxin V (PrdxV) as a candidate tumor marker. Prdxs are a family of multifunctional proteins that are involved in the cell protection against oxidative stress, modulation of intracellular signaling, and regulation of cell proliferation. Knockout animal models suggest that the regulation of these proteins may be a novel target for therapeutic interventions.

Method A total of 91 tumors and 79 normal breast tissues obtained from a panel of 106 Sudanese breast cancer patients, as well as 31 paired tissue samples (tumors and controls) from Chinese cancer patients were included in this study. Tissue sections were examined using immunohistochemistry (IHC) for PrdxI, V and VI antibodies; in situ hybridization (ISH) for PrdxV mRNA pattern of expression in both Sudanese and Chinese tissue sections. Statistical comparisons were performed between Prdxs antibodies, and between available demographic and pathological parameters.

Results The studied Prdxs were found to be overexpressed in both Sudanese and Chinese breast cancer and control samples. PrdxV was the only member of the Prdxs family to be significantly down-regulated in Sudanese tumor samples, with only a few cases being immunoreactive for PrdxV (11%). Significant elevation was demonstrated between tumors and controls at both the protein (using IHC) ($P=0.000$) and mRNA (using ISH) ($P=0.044$) levels. However, the finding was more apparent and statistically significant at the protein level, suggesting the presence of posttranslational modification.

Conclusion These findings suggest that PrdxV is a tumor marker of population specificity. However, more studies are needed to investigate the applicability of PrdxV as a marker in Sudanese breast cancer patients and its potential implications in therapy.

**POSTER
066**

Elkateb, Nagwa

THE IMPACT OF FATIGUE AND SYMPTOMS DISTRESS ON QUALITY OF LIFE AND SAFETY OF ADULT CANCER PATIENT

Saturday
23 November
2013

Nagwa Elkateb*

National Cancer Institute, Cairo University, Egypt

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Objective The purpose of this study is to assess fatigue and symptom distress in adults with cancer and if these problems affect quality of life and have an impact on patient safety.

Methods A convenient sample of 100 adult patients recruited from the National Cancer Institute, Cairo, Egypt. Data were collected through self-administered questionnaire or patient structured interview.

Tools used FACIT-Fatigue Scale (Version 4), NCCN Distress screening tool, EORTC QLQ-C30 (Version 3), review medical and nursing records. Data analysis includes descriptive statistics and exploration of relationships between key variables; fatigue and distress, fatigue and quality of life, distress and quality of life, key variables with patient demographics, diagnosis and cancer site, and type of treatment. Concordance between key variables.

Results Preliminary results revealed significant correlation between fatigue, distress and quality of life. Decreased safety measures are correlated with fatigue and low quality of life.

Conclusion Fatigue and distress are common problems in patient with cancer, screening of these symptoms should be performed on admission and frequently throughout treatment phase to identify patients at risk in an earlier stage to improve quality of life and maintain safety.

WORKSHOP

Oncology nursing

14h30–17h30

Saturday

23 November

2013

Elshamy, Karima

COMMUNICATION WITH PATIENTS AND THEIR CARERS: HOW TO COMMUNICATE BAD NEWS, ENGAGING IN PERSON CENTERED CONVERSATIONS

Karima Elshamy*

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Background: No one likes breaking bad news. Breaking bad news can be extremely stressful for nurses or other professional involved. Breaking bad news is a complex communication task that requires expert verbal and non-verbal skills. This complexity can create serious miscommunications, such as the patient misunderstanding the prognosis of the illness or purpose of care. These misunderstandings are more common when the news is bad and, when patients and carers are physically, emotionally or psychologically stressed.

When bad news is delivered poorly the experience may stay in a patient's or carer's mind long after the initial shock of the news has been dealt with. When patients have other special needs such as sensory impairment, learning or physical disabilities staff should ensure that the appropriate support mechanisms are available.

Effective communication with patients and carers is vital in the delivery of high quality health care. Carers must be recognized, respected, valued and supported for the essential service they provide. Benefits of effective communication between treatment team members and patients and carers include improvements in the patients' psychosocial adjustment, decision making, treatment compliance and satisfaction with care.

By the end of this session, participants will:

- Define What is bad news
- Identify why communication of "bad" news is important
- Outline the general objectives and techniques of communication in healthcare
- Identify the principles of effective communication
- Identify the general principles for breaking bad news
- Identify barriers to effectively breaking bad news
- Understand the ways in which patients and carers can be involved as partners in health care both in preventing harm and learning and healing from an adverse event
- Understand recommended steps for delivering bad news

WORK- SHOP

Oncology nursing

14h30–17h30
Saturday
23 November
2013

Elshamy, Karima

PATIENT SAFETY. A FOCUS ON ERRORS AND NEAR MISS MONITORING AND REPORTING OF ISSUES: MANAGING CHALLENGES

Karima Elshamy*¹; Margaret Fitch*²

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Introduction and aim of the presentation Improving patient safety has received significant focus in the last decade and major advances have been accomplished as health care organizations, providers, policy makers, and scientists from numerous disciplines focus effort on how to understand the causes and protect patients from injury. It is clear that some health care professionals do not report near misses for a number of reasons: lack of understanding; fear; blame; belief that reporting may not result in improvement; and complaints about available reporting methods.

It was identified that human factors, such as lack of experience, skill or motivation as factors that inhibit a person's ability to perform well and as a result, errors and near misses become inevitable, and the impact of these factors is magnified when the person is fatigued, stressed or distracted, all of which tend to be magnified during a crisis. As a result the reporting and evaluation of near misses provides data for development of strategies for patient safety improvement.

The intent of this presentation is to: draw awareness about the significance of patient safety, focus on errors and near miss monitoring and reporting of issues, and managing challenges through discussing:

- What is patient safety?
- The significance for improving patient safety
- What are errors and near misses?
- Errors and near misses examples
- Why should they be taken seriously?
- Why focus on errors and near misses?
- Purposes of reporting errors and near miss
- Barriers of reporting errors and near miss
- When to monitor and report errors and near miss?
- What information needed to report near miss?
- How to increase near miss reporting?
- How to managing these challenges?

WORK- SHOP

Elzawawy, Ahmed

**HOW THE AFFORDABILITY OF RADIOTHERAPY AND ESSENTIAL
CANCER DRUGS IMPROVES BREAST CANCER CONTROL IN AFRICA:
AN EXAMPLE FROM PORT SAID, EGYPT**

Breast cancer:

**focus on
therapy & care**

14h30–17h30

Saturday

23 November

2013

Ahmed Elzawawy*

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All plans of breast cancer control are not enough to produce considerable outcome if they lag behind plans for affordability of better value treatment in Low and Middle Income Countries (LMICs). The late presentation of breast cancer and poor outcome due to difficult accessibility of care are big challenges in Africa.

In Port Said, Egypt, we started in 1984 to develop a unit for free of charge chemotherapy. In 1994, the charity Alsoliman radiotherapy centre was inaugurated with a continuous progress till present. The comprehensive management facilities are interconnected and accessible, free of charge, for all citizens, we counted on the mobilization of different local resources. There was a decline in advanced cases. Mean time from a symptom to seeking advice was 18, 8, 3, 1 and 1 month respectively in 1987, 1989, 1999, 2007 and 2012. In 1984, there was no patient as a candidate for breast conservation while the percentage was 21.8% of 151 patients in 2012.

Five-year survival rates increased from 35% in during 1984–1988 to 86% during 2003–2007. In 2007–2009, local recurrences at 3 years become among the lowest in the world as it was 0.7% among patients with mastectomy and 0.3% after breast conservation.

The win-win scientific initiative (www.icedoc.org/winwin.htm) aims at increasing affordability of better value care tailored to different communities by exploring scientific approaches. Early detection programs would be frustrating for both patients and health authorities if our patients in Africa were unable to afford treatment.

WORK- SHOP

Radiation and chemotherapy

14h30–17h30,
Friday
22 November
2013

Elzawawy, Ahmed

NOTIONS OF BETTER VALUE RADIATION THERAPY AND CHEMOTHERAPY IN AFRICA

Ahmed Elzawawy*
ICEDOC & AORTIC, Egypt

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In the last 50 years terms like effectiveness, efficiency, cost effectiveness, quality and safety were the dominant words in fields of health care. The third revolution in health care implies the use of knowledge and informatics for getting better outcomes centered around the customers i.e. the patients. Hence, it implies the use of the new term "Value". In 2013, Sir Muir Gray and David Kerr stated that "Value" will be the eminent term for the upcoming years. It will not extinct the previous terms but it will embrace them. After 40 years of uncertainties and the money spent, Robert Brook, a pioneer quality expert, declared in 2010 "The end of the quality movement and long live improving value!" Michael Porter cited in 2008 that "Value" is centered on the patients; it depends on the outcome and not the inputs, nor the volume of services, nor it is measured by process of care used.

Hence, "Value" is defined as outcomes relative to cost. Economic measures with just reduction of cost and/or budget could be very dangerous. The more suitable are exploring scientific and medical approaches to get better value of cancer care and in reduction of waste in appropriate and not futile treatment. Moreover, we present scientific approaches for to how to get better value radiotherapy and chemotherapy tailored to different locations in developed and developing countries and Africa with emphasis on our win-win scientific initiative that consider all stakeholders.

Friday
22 November
2013

George Enow Orock*
Yaounde Cancer Registry, Cameroon

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The Yaounde Cancer Registry has been operational since 2004, a period of 10 years, during which 6152 new cases of cancer were diagnosed, giving an annual average of 770 cases, in this population of about 1.5 million inhabitants. The aim of this study was to find out the cancer profile in the target population and challenges and prospects of cancer registration after a decade of activities.

Data of the Registry was retrieved and analysed for the period under study, 2004–2011. Females constituted 63% of patients against 37% males and 10.3% of cases involved children aged 0–19 years, and Burkitt's lymphoma was commonest in this class (38%). Cancer deaths-in-period was approximately 5%. Majority of cases were registered from the five main government hospitals in the Yaounde municipality. Major cancers were breast (18.5%), cervix 13.8%), NHL (11.9%), prostate (7.3%), Kaposi sarcoma (6.9), liver (3%), and colorectal (2.9%). 40% of cancers were infectious in etiology, hence preventable.

During the study period, there was no significant change in incidence of various cancers except for HIV-related malignancies and colorectal cancers that upsurged. HIV infection decreased the average cancer age by 13 years, and more than 60% patients are seen at advance disease stage. 7% of cancer patients with known sero status are HIV infected. Majority of patients are treated by surgery and chemotherapy.

The challenges facing the Yaounde Cancer Registry include inadequate financial, logistics and personnel resources. These difficulties influence the completeness of cancer registration and eventually the accuracy of data. However, after 10 years, the Yaounde Cancer Registry is indicating reliable cancer incidence and trends in the population. It could do better with more resources.

Faduyile, Francis

**PATTERN OF CERVICAL BIOPSY IN LAGOS STATE UNIVERSITY
TEACHING HOSPITAL: A THREE YEAR REVIEW**

Francis Faduyile*¹; Olugbenga Oyewole²; Sunday Soyemi²; Adokiye Benebo²;
John Obafunwa²

¹Lagos State University College of Medicine, Nigeria; ²Dept. of Pathology &
Forensic Medicine, LASUTH, Ikeja, Nigeria

Saturday
23 November
2013

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Objective Cancer of the cervix is the second commonest cancer in the world. In Nigeria, it is the commonest killer cancer among the women. Cervical biopsies among many other things are used to rule out or confirm highly suspicious cases.

Materials and methods All cervical biopsy slides over a period of 3 years [2008–2010] were retrieved and re-evaluated for confirmation of diagnosis and tumour typing in our department the only state owned tertiary health centre. Clinical data were obtained from histopathology registers and request forms.

Results A total of 191 cervical biopsy specimens were received during the period under review. The age range was 24–84 years and a peak biopsy presentation was in the fifth decade (41–50 age group) which was followed by age group 31–40 years. Squamous cell carcinoma (SCC) was the commonest diagnosis accounting for 36.7% of all biopsies received and cervical intraepithelial lesion (CIN) accounted for 14.7%. SCC accounted for 25% of all lesions between age group 20–40 years but among the over 60 years it accounted for 73.7% of all biopsies.

Conclusion Cancer of the cervix and its precursor CIN are the commonest findings in cervical biopsy specimens in our environment. Cervical biopsies in older women are most likely to be a cancer as against the younger age group. Preventive interventions should be instituted to reduce the scourge of this highly preventable killer cancer in our women.

WORK- SHOP

Fagundes, Renato B

**ENVIRONMENTAL FACTORS AND ESOPHAGEAL SQUAMOUS CELL
CARCINOMA: MATÉ**

AORTIC/IUBMB

**oesophageal
cancer**

symposium

14h30–17h30

Wednesday

20 November

Renato B Fagundes*

Universidade Federal de Santa Maria, Brazil

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The highest rates of esophageal squamous cell carcinoma (ESCC) in Brazil occur in Rio Grande do Sul, the most southern state, which has incidence rates of 20.4/100 000/year for men and 6.5/100 000/year for women. Exposure to carcinogenic polycyclic aromatic hydrocarbons (PAHs) through tobacco smoke and other sources may increase the risk of ESCC.

Drinking maté, a common habit in Rio Grande do Sul, as well as in Argentina and Uruguay, may increase the risk of ESCC. We identify high levels of 1-OHPG in the urine of mate drinkers. Later we found high but variable PAH content in commercial yerba maté samples. This findings raised the hypothesis that the carcinogenicity of mate is probably related to PAH content. Processing yerba mate so it contains less PAH could potentially reduce health risks without asking consumers to drink less maté. No smoked varieties of yerba maté are currently available, which may reduce this risk, though research comparing relative cancer risks of smoked versus no smoked yerba maté is not available.

Falode, Deborah

AN ASSESSMENT OF RADON AS AN ENVIRONMENTAL CARCINOGEN
IN A UNIVERSITY CAMPUS OF NIGERIA: USING OBAFEMI AWOLOWO
UNIVERSITY CAMPUS AS A CASE STUDY

Saturday
23 November
2013

Deborah Falode*¹; Oluwasegun Afolabi²; Bosun Banjoko³;
Benjamin Fajewonyomi²; James Tobih⁴; Babakayode Olubodun⁵
¹Afe Babalola University, Ado-Ekiti, Nigeria; ²Dept of Community Health, Obafemi
Awolowo University, Ile-Ife, Nigeria; ³Dept of Chemical Pathology, Obafemi
Awolowo Univ.; ⁴Dept of Surgery, E.N.T Unit, Ladoke Akintola University Teaching
Hospital, Osogbo, Nigeria; ⁵Dept of Geology, Obafemi Awolowo Univ.

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Objectives Globally, radon is a contaminant that affects indoor air quality. Several epidemiological studies have implicated high radon levels in the causality of lung cancer. The study therefore assessed the knowledge of Obafemi Awolowo University (OAU) staff about radon and determined the environmental level of radon in selective offices.

Method The study employed a descriptive cross-sectional design. A Pro 3-series radon detector was used to determine the radon levels in purposively selected offices. The instrument was set-up in each office and after 48 hours, reading was taken and recorded on proforma data sheet.

Results The result revealed that the radon level obtained in the sampled offices ranged from 0.0–196.1 Bq/m³. The mean concentration of radon obtained from sampled offices was 37.0 ±29.6 Bq/m³. Almost all (95%) of the offices had radon levels within the ‘permissible’ reference level recommended by World Health Organization. Others were above this level. Radon levels also showed a decline with height of office building with the mean concentration of radon in offices located on the basement, ground floor and first floor being 55.5±48.1 Bq/m³, 36.6±20.7 Bq/m³, 22.2±14.8 Bq/m³ respectively, this was statistically significantly different (F statistics, p<0.001).

Conclusion The radon levels obtained in the selected offices in Obafemi Awolowo University (OAU) were found to be within the permissible reference levels. There was however poor awareness of radon and its health risk among the staffs of OAU.

Falode, Deborah

CELL PROLIFERATION AND EPITHELIA PROFILE IN PROSTATE CANCER AND BENIGN PROSTATIC HYPERPLASIA

Deborah Falode*¹; Olalekan Ogundele*²; Patrick Adegun³

¹Afe Babalola University, Ado-Ekiti, Nigeria; ²Department of Anatomy, Afe Babalola University, Ado-Ekiti., Nigeria; ³Dpartment of Urology and Oncology, Ekiti State Teaching Hospital, Ado-Ekiti, Nigeria

Friday
22 November
2013

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Objectives Prostate cancer (PCa) and Benign Prostatic Hyperplasia (BPH) are the leading cause of urinary tract disorders in males both of which are characterized by rapid proliferation of cells. This study characterizes the Ki-67 and E-Cadherin profile in BPH and PCa biopsies to determine and compare the extent of aggressiveness of cell proliferation in BPH and PCa.

Method Biopsies were collected form patients clinically diagnosed to be suffering from PCa or BPH and were immunohistochemically labeled using Anti-Ki-67 and Anti-ECAD monoclonal antibodies. The antibody labeling was done following antigen retrieval.

Results The expression level of Ki-67 corresponded to the rate of proliferation and size of the tumor cell mass in both PCa and BPH. ECAD expression was highly positive in BPH and less positive in PCa showing onset of malignancy in PCa. Certain cell clumps (metastases) stained highly positive to Ki-67 and were located at random intervals within the tissue of PCa biopsies, this type of distribution also coincided with ECAD immunonegativity.

Conclusion Ki-67 expression indicates the rate of cell proliferation and the aggressiveness of such tumors, while ECAD shows defective cytoskeleton and extent of malignancy.

**POSTER
070**

Sunday
24 November
2013

Falode, Deborah

ROLES OF CELL CYCLE REGULATORS IN PROGNOSTIC DETERMINATION OF PROSTATE CANCER AND BENIGN PROSTATIC HYPERPLASIA PROGRESSION

Deborah Falode*¹; Olalekan Ogundele*²; Linus Enye²

¹Afe Babalola University, Ado-Ekiti, Nigeria, Nigeria; ²Department of Anatomy, Afe Babalola University, Ado-Ekiti, Nigeria

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Background The prostate gland is an almond shaped gland located directly below of the urinary bladder and circling the prostatic urethra. The incidence of prostatic disorders has been found to increase with age; especially in PCa and BPH. PCa and BPH are both characterized by cell proliferation and active division at specific tissue sites. The two forms of cell proliferation are regulated by cell cycle and are perhaps created by molecular mechanisms dysregulation that will alter such regulatory mechanisms.

Method Human prostate biopsies were obtained from clinically diagnosed patients and were studies immunohistochemically to map the distribution of p53, CathD and Bax.

Results and conclusion In PCa, the increased levels of P53 and Bax signals pre-apoptotic tendencies for rapidly proliferating un-coordinated cells which can be located at random locations due to loss of matrix and adhesion molecules described in high CathD levels. p53, CathD and Bax co-localization gives a holistic approach to understanding the cell cycle in BPH and PCa and in distinguishing the pattern of cell proliferation in both conditions.

WORK- SHOP

BIG CAT grants II

11h00–13h00
Friday
22 November
2013

Farrant, Lindsay

LIFE-LIMITING PROGRESSIVE MALIGNANT DISEASE AMONG SOUTH AFRICANS: AN INVESTIGATION TO DETERMINE THE PREVALENCE AND BURDEN OF MULTIDIMENSIONAL SYMPTOMS AND QUALITY OF LIFE

Lindsay Farrant*¹; Liz Gwyther¹; Richard Harding²

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Background Despite on-going efforts at cancer prevention and cure, many patients die annually from progressive malignant disease. The World Health Organization has identified palliative care for patients and their families as a global human right and an essential component of a public health cancer control system. For patients with advanced cancer who access palliative care, international evidence has demonstrated a high prevalence of physical and psychological problems. If the benefits of palliative care are to be accessible by all South Africans with progressive malignant disease, oncology services should be offered the appropriate local evidence of their patients' palliative care-related problems. To date, no studies have measured the pain and symptom prevalence and multidimensional needs of South Africans affected by advanced cancer.

Objective This study aims to measure the seven day period prevalence of physical and psychological symptoms, the quality of life, and the risk of depression amongst South African cancer patients with a poor prognosis who are attending oncological services in metropolitan public and private settings.

Methods This is a cross-sectional survey using well-validated multidimensional outcome measures that are appropriate to the South African context. Inclusion criteria include adult oncology patients aged 18 years or older, with a cancer diagnosis, stage 3 or 4, who are clinically deemed to have a poor possibility of cure.

Results and conclusions Results to date will be discussed.

POSTER
072

Faustin, Ntiringanya

INTENSIFYING AWARENESS ON EARLY DETECTION OF BREAST MASSES: A SHORT-TERM STRATEGY TO DECREASE BREAST CANCER CASE-FATALITY RATES IN DEVELOPING COUNTRIES

Petroze Robin*¹; Ntiringanya Faustin*²; Kingham Peter*³

¹University of Virginia, United States; ²Kigali University Teaching Hospital, Rwanda; ³Memorial Sloan Kettering Cancer Center, United States

Thursday
21 November
2013

Correspondence Faustin, Ntiringanya

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Background Breast cancer is increasing dramatically in developing countries as westernization of the life style increases risk factors. Cultural and structural barriers often cause delay in seeking medical care resulting in high case-fatality rates.

Patients and methods This study analyzes patients with breast masses, as identified by the Surgeons OverSeas Assessment of Surgical Need (SOSAS) survey in two low-income African nations. SOSAS is a cross-sectional cluster-based population survey that was conducted in Rwanda (East Africa) in October 2011 and in Sierra Leone (West Africa) in January 2012. Data from the two studies were aggregated and analyzed using descriptive statistics to determine the prevalence of breast masses in the population. We further compared knowledge, attitude and practices of women with breast masses to identify barriers to seeking medical treatment.

Results 3469 households (1626 Rwanda; 1843 Sierra Leone) were surveyed nationwide in both countries with 6820 people (3175 Rwanda; 3645 Sierra Leone) responding to the questionnaire. 55.6% of all respondents were female, while 44.4% were male. The prevalence of breast masses was found to be 3.3% and 4.6% of the total population in Sierra Leone and Rwanda, respectively. 93.8% of masses were found in women and 6.2% in men. 49.23% of breast masses are found in women of more than 30 years of age, with a peak in the 40s. 100% of women described a single lump; the mass was present more than 12 months in 88.6% and 66.6% respectively, in Rwanda and Sierra Leone. These masses are reported to be not disabling by 73.7% of Sierra Leonese woman and 92.4% of Rwandese and this was the first reason of not seeking treatment. 36.8% of women with breast masses consulted only traditional healers instead of going to health centers.

Conclusion Many women in Rwanda and Sierra Leone do not seek for medical care when they feel a breast mass because they do not know what it represents. Education about breast cancer and advocacy around curability should play a big role to change that mentality and enhance awareness about the disease in order to reduce the high mortality-to-incidence ration found in those developing countries.

Saturday
23 November
2013

Ntirenganya Faustin*¹; Petroze Robin*²; Kingham Peter*³; Kamara TB⁴; Groen RS⁵; Kushner AL⁶

¹Kigali University Teaching Hospital, Rwanda; ²University of Virginia, United States; ³Memorial Sloan Kettering Cancer Center, United States; ⁴Connaught Hospital, Surgery Department, Sierra Leone; ⁵Surgeons OverSeas, United States; ⁶Department of International Health, Johns Hopkins Bloomberg School of Public Health, United States

Correspondence Faustin, Ntirenganya

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Objectives Breast cancer is increasing dramatically in developing countries as westernization of the life style increases risk factors. Cultural and structural barriers often cause delay in seeking medical care resulting in high case-fatality rates. The objective of this study was to determine the prevalence of breast masses in the general populations of Rwanda and Sierra Leone. We further identified and compared barriers for seeking medical treatment in women with breast masses in these countries.

Patients and methods This study analyzes patients with self-reported breast masses, as identified by the Surgeons OverSeas Assessment of Surgical Need (SOSAS) survey in two low-income African nations. SOSAS is a cross-sectional cluster-based population survey that was conducted in Rwanda (East Africa) in October 2011 and in Sierra Leone (West Africa) in January 2012. Data from the two studies were aggregated and analyzed using descriptive statistics.

Results 3,469 households (1,626 Rwanda; 1,843 Sierra Leone) were surveyed nationwide in both countries and 6,820 people (3,175 Rwanda; 3,645 Sierra Leone) were interviewed. 55.6% of all respondents were female, while 44.4% were male. The prevalence of breast masses was found to be 3.3% and 4.6% of the total population in Sierra Leone and Rwanda, respectively. 93.8% of masses were found in women and 6.2% in men. These masses were not disabling as reported by 73.7% of Sierra Leonean woman and 92.4% of Rwandese. This was the primary reason for not seeking treatment. 35% of women in Sierra Leone and 11.4% in Rwanda described financial hardship as a reason for not seeking medical attention. 36.8% of women with breast masses consulted only traditional healers instead of going to health centres. Over 75% of women in both countries had no schooling or stopped after primary school.

Conclusion Many women in Rwanda and Sierra Leone do not seek medical care when they feel a breast mass. Minimal education, poverty, and reliance on traditional healers are all barriers to accessing assessment by a physician. Education about breast cancer and advocacy around curability should play a big role to change that mentality and enhance awareness about the disease in order to reduce the high case-fatality rates.

WORK- SHOP

Fernandez, Pedro

**CONFIRMING AND EXTENDING PROSTATE CANCER GENOME-WIDE
ASSOCIATION STUDIES IN SOUTH AFRICAN MEN**

**BIG CAT
grants I**

09h00–10h30

Thursday

21 November

2013

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The highest rates of prostate cancer (CaP) are observed in African-American men, and GLOBOCAN 2008 project estimates indicate that CaP is also the leading cancer in terms of incidence and mortality in men from Africa and the Caribbean. Numerous genome-wide association studies (GWAS) have identified chromosomal loci that are associated with risk of developing CaP, with the majority of these studies having been undertaken in men of European or Asian descent. Furthermore, several studies have validated these associations in African-American men. However, even though African ancestry is considered a risk factor for developing CaP, only few investigations have sought to identify CaP risk loci in populations residing in Africa.

In the year 2011, we were awarded an AORTIC/NCI “Beginning Investigator Grant for Catalytic (BIG Cat) Research” to replicate previous CaP GWAS investigations in South African men. We performed Taqman® genotype analyses for selected single nucleotide polymorphisms (SNPs) located on chromosomes 2p15, 6q25, 7p15.2, 7q21, 8q24, 10q11, 10q26, 11q13, 17q12, 17q21, 17q24, 19q13 and Xp11 in samples from 500 men diagnosed with CaP (comprised of South African Black, Mixed Ancestry and White men) and 350 age- and ethnicity-matched control samples. Four SNPs (rs7008482, rs6983267 and rs6983561 on chromosome 8q24; rs10993994 on chromosome 10q11) showed evidence of associations with CaP, indicating that loci previously associated with CaP in other populations may also have an effect on CaP risk in South African men. These preliminary data set a platform for extending GWAS investigations in larger studies involving other populations in Africa.

WORK- SHOP

Fernández Garrote, Leticia María

DEVELOPING MATERIAL FOR CANCER REGISTRY TRAINING

Leticia María Fernández Garrote*; David Forman*; Maria Stella de Sabata
IARC, France

The case for cancer registries in Africa

14h30–17h30

Thursday

21 November
2013

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The International Agency for Research on Cancer has long maintained a program of training cancer registry staff. With the creation by IARC of the Global Initiative for Cancer Registries (GICR) and the current interest in cancer surveillance, it is a priority to extend and enhance this program. The IARC textbook “Cancer Registration: Principles and Methods” urgently needs revision and rewriting in a modern way in order to provide specialized material for the education of professionals in cancer registries.

The design of a Structured Education Program (SEP) in cancer registration will include development of theoretical and practical training modules, organized in three areas of functional activity, based around the different skills to be attained: data collection and processing, organizational aspects of registries, data analysis and research. The identification of the problems to be solved in each area is part of the first phase of the SEP. The second phase is the selection of target groups and requirements/skill levels for applicants. The design and development of the SEP is an original idea, of relevance especially to LMIC. The improvement in the education level of cancer registry professionals will contribute to the improvement of quality of data from cancer registries.

The SEP should be flexible and easily adapted to different needs, languages and environments. Validation through qualitative techniques applied to experts is essential: face to face interviews and questionnaires applied to selected professionals who are involved with education activities related to cancer registries. “Pilot Test Courses” in selected target places, addressed to evaluate contents, methods and training materials will be planned including validation instruments applied to participants, professionals and managers.

WORK- SHOP

Finesse, Anne Michelline

HISTORY AND DEVELOPMENT OF AFRICAN CANCER REGISTRY NETWORK (ACRN)

Africa Cancer Registry Network

14h30–17h30

Friday

22 November
2013

Anne Michelline Finesse*

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Introduction Cancer is not rare in Africa. Nevertheless, there is considerable variation in the profile of cancer, even within the same region. The importance of cancer as a health problem underlines the need for systematic cancer control programme maximising scarce resources. The African Cancer Registry Network (AFCRN) was formally inaugurated on 1st March 2012, and succeeded the activities of the East African Cancer Registry Network (EARN).

Objectives AFCRN aim is to improve the effectiveness of cancer surveillance by creating a regional hub in sub-Saharan Africa.

The role of a regional hub is in:

- providing technical and scientific support to countries;
- delivering tailored training in population-based cancer registration and use of data;
- advocating the cause of cancer registration in the region and facilitating setting up of cancer registries
- coordinating international research projects and disseminating findings

Results To date the network has expanded to 23 members since the establishment; AFCRN's cancer registration consultants visited over 20 cancer registries in 15 countries and established detailed reports and recommendations; two advanced, two practical and one intermediate training course (French) trained 62 cancer registry staff from 18 African countries; funded two CanReg trainers trained in Lyon as well as developing a model AFCRN triennial report.

Conclusions The African Cancer Registry Network has made enormous contributions in improving the quality of the data from the cancer registries in Africa. Since the establishment the magnitude of which the registries anticipate to participate as members is tremendous. The need of quality data for cancer control has been gradually recognized by local governments and international health organizations.

WORK- SHOP

**Oncology
nursing**
14h30–17h30
Saturday
23 November
2013

Fitch, Margaret

**PSYCHOLOGICAL CARE: DISTRESS SCREENING, MONITORING
PATIENT DISTRESS AND CANCER NURSES' RESPONSES TO PATIENT
DISTRESS**

Margaret Fitch*
Sunnybrook Health Sciences Centre, Canada

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Individuals diagnosed with cancer frequently experience more than a physical or biological impact from their disease and its treatment. They also cope with emotional, social, spiritual and practical consequences. Early identification of the resulting distress and the provision of appropriate interventions to reduce or ameliorate this distress are cited as a standard of high quality cancer care. In order to ensure this standard is achieved, concrete strategies are required.

One such approach is the implementation of a program of screening for distress. Cancer nurses are in an ideal position to identify psychosocial distress, determine its source and assess its severity and impact, administer effective interventions, refer as required, and monitor the outcomes of the interventions over time. Communication with other health team members is an important step in this process and contributes to relevant shared care approaches. Successful implementation of programmatic approaches to management of emotional distress in cancer patients requires clear identification of roles and responsibilities, workflow processes, guidelines for practice and inter-professional collaboration. Ultimately the principles need to be adapted for the local setting and context.

WORK- SHOP

AORTIC-IPOS

**Academy:
Education and
communication**

11h00–13h00

Wednesday
20 November

Fitch, Margaret

**THE USE OF DISTANCE MODALITIES AND THE ROLE OF
INTERPROFESSIONAL EDUCATION TEACHING AND LEARNING
PERSON CENTERED CARE**

Margaret Fitch*¹; Deborah McLeod*²

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QEII Health Sciences Centre, Canada

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Like many countries, Canada envisions a cancer care system where excellent, evidence-based person-centered care is fully integrated with biomedical care, not only for patients, but also for their intimate others. Over the past decade organizations such as the Canadian Partnership Against Cancer, the Canadian Association of Psychosocial Oncology (CAPO) and Nurses in Oncology (CANO) have collaborated on a number of initiatives designed to accomplish this, including the development of a national screening for distress initiative and development and dissemination of a number of clinical practice guidelines. Interprofessional education is an integral part of all these initiatives.

In 2008, CAPO launched a distance education project called the “Interprofessional Psychosocial Oncology Distance Education” (IPODE) Project. The IPODE project offers five courses, varying in length from 6 hours to 16 weeks. Evaluations of the project suggest that distance education is feasible and effective in helping health care professionals to develop person-centered practice knowledge and skills.

In this presentation we will discuss these initiatives, including the underlying pedagogical commitments and the outcome data, as well as our experiences in oncology nursing education in several African countries. We will offer some beginning ideas about potential collaborations for distance education and an opportunity to discuss these with participants.

WORK- SHOP

Oncology nursing

14h30–17h30

Saturday

23 November

2013

Fitzgerald, Barbara

ASSESSMENT AND MANAGEMENT/INTERVENTION FOR THE MOST COMMON SYMPTOMS: THE ROLE AND RESPONSIBILITY OF NURSING

Barbara Fitzgerald*

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Introduction The presence of multiple co-occurring symptoms is critical to patients because of altered comfort or distress, and impact the quality of their life. Improving the quality and consistency of a patient's experience requires earlier identification of symptoms, improved symptom management and improved collaborative care planning (Temel et al., *NEJM*, 2010). As a valued member of the team, nursing is concerned with the experience of health and illness, the promotion of independent functioning, and the provision of physical and emotional support for individuals and families. Our specialty knowledge and skill can be utilized to manage the co-occurring symptoms and side effects of treatment.

Methods Dodd et al. (2001) provides a conceptual model that helps describe and measure the relationship between the symptom experience (e.g. frequency and severity) symptom management strategies and potentially related symptom outcomes (e.g. emotional and functional status). It provides direction for selecting interventions and delineates cultural, disease related, and individual differences in symptoms. Commonly occurring symptoms like fatigue, pain, nausea, anxiety and depression will be discussed. A Symptom Management Toolkit will be introduced as a resource. The tool kit includes a standard symptom assessment system and evidence driven clinical practice guidelines that help guide decision making at the point of care.

Results Taking these tools and applying them to your local context will help translate knowledge into practice. This can be applies to nursing practice in the home care setting, the community, ambulatory out-patient settings, and/or hospital inpatient settings.

WORK- SHOP

Radiation and chemotherapy

14h30–17h30

Friday

22 November

2013

Formenti, Silvia

TWO DIMENSIONAL VERSUS THREE DIMENSIONAL BREAST IRRADIATION TECHNIQUE: COST EFFECTIVENESS IN LOW RESOURCE COUNTRIES WITH HIGH VOLUME OF LOCALLY ADVANCED DISEASE

Silvia Formenti*¹; Etin-Osa O Osa¹; Nestory Masalu²; Gabor Jozsef¹

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In the US the cost effectiveness ratio for routine 3D breast RT following conservative surgery for early stage breast cancer is \$28,000 per quality adjusted life year, QALY (Hayman, *JCO*, 1998), and for post mastectomy RT in locally advanced disease, is \$22,600/QALY (Lee, *JCO*, 2002). According to the WHO, a treatment may be considered cost effective if the annual QALY does not exceed the country's per capita GDP. The per capita GDP for low resource countries ranges from below \$400 to \$6,400 and specifically, it is \$1567.00 for Tanzania. This reality warrants a search for safe and cost effective alternatives for breast RT in countries with low economic resources.

We propose two approaches to reduce the costs:

1. reducing the number of RT fractions (hypofractionation) and
2. reducing complexity of set-up and planning while maintaining reproducibility and safety.

A 5 fraction prone breast approach that eliminates the need for CT simulation required for 3D breast RT and instead utilizes a system of 6 clinical measurements using relatively inexpensive tools (calipers, levels, and position indicators) was designed to attain the necessary parameters for breast RT planning. The prone technique, an expertise developed in the past 15 years at NYU (Formenti, *JAMA*, 2012) allows for sparing of heart and lung, an important consideration when hypofractionated RT is used. To assess the feasibility of prone hypofractionated breast RT utilizing the caliper system, a protocol was designed at NYU and will be pilot-tested at Bugando Medical Center, BMC, in Mwanza, Tanzania, in collaboration with BMC investigators.

This approach would reduce the workload; require less training, personnel, and complexity of equipment. A 2D compared to 3D breast RT approach may be as safe and feasible but more cost effective than a CT planning based technique, and may be a desirable option in low resource countries. Currently a trial is on-going to verify feasibility and safety of the caliper based system.

WORK- SHOP

Fosu-Amoah, Daphney

**AN AUDIT OF OPERABLE EARLY STAGE CANCER OF THE CERVIX AT
PRETORIA ACADEMIC HOSPITAL COMPLEX**

**Free
communication
of abstracts V
11h00–13h00
Sunday
24 November
2013**

Daphney Fosu-Amoah*; Greta Dreyer
University of Pretoria, South Africa

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Background Cervical cancer remains the second most common cancer among women worldwide and the most common cancer amongst black African women in South Africa. The outcome of patients with early disease managed surgically and those managed by radiotherapy is similar. This has led to many controversies around the management of patients with early operable disease.

Objective The objectives of this study were to establish the frequency of adjuvant therapy in patients operated for cancer of the cervix at Pretoria Academic Hospital complex. Also, to analyse which risk factors necessitate the need for adjuvant radiotherapy or chemoradiation as well as to identify variables that will predict the need for adjuvant therapy in the pre-operative phase.

Methods Patients operated for early cervical cancer by members of the gynaecologic oncology unit at University of Pretoria, between 1 January 2008 and 31 December 2012 were eligible. A list was generated from the gynaecologic oncology records and the theatre register.

Results 190 patients met the inclusion criteria. 72.1% (137) had squamous cell cancer, 18.4% (35) had adenocarcinoma, 4.2% (8) had adenosquamous cancer, 0.52% (1) had clear cell, and 5.2% (10) had other histological types. 98 (50%) patients were referred for adjuvant therapy based on identification of risk factors for recurrence upon review of histological findings. Patients with stage 1b1 referred for adjuvant therapy were 38.3% (33 of 86), those with stage 1b2 were 68.7% (44 of 64) and those with stage IIa were 70.3% (19 of 27). Most patients with large tumours (<4cm) required adjuvant radiotherapy (75.3%).

Conclusion Patients with stage 1b1 mostly do not require adjuvant therapy. The outcome of patients with cervix cancer stage 1b2 and IIa managed by radical surgery is usually a need for adjuvant therapy. Surgery still remains a feasible option for patients with large tumours in resource poor settings.

WORK- SHOP

Gakunga, Robai

THE COSTS OF CANCER REGISTRATION IN SUB-SAHARAN AFRICA: THE CASE OF KENYA

**Africa Cancer
Registry
Network**

14h30–17h30
Friday

22 November
2013

Robai Gakunga*¹; Florence Tanga²; Sujha Subramanian³;
Maggie Cole Beebe³; Buziba Nathan⁴; Anne Korir⁵; Mona Saraiya²;
David Baden⁶; Gladys Chesumbai⁴; Maxwell Parkin⁷

¹KEMRI/CDC, Kenya; ²CDC, United States; ³RTI International, United States;

⁴Eldoret Cancer Registry, Moi University, Kenya; ⁵Nairobi Cancer Registry, KEMRI, Kenya; ⁶CDC, Kenya; ⁷African Cancer Registry Network, United Kingdom

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Cancer incidence and death are rising in sub-Saharan Africa yet many countries have not prioritized cancer registration, an important part of a country's health information system. Population based cancer registry (PBCR) data helps to understand and address a country's cancer burden. Costs of cancer registration in sub-Saharan Africa are driven by the size of the registration area, the registry activities carried out, the number of data items collected, as well as the number and record keeping effectiveness of the different sources of data. Adequate infrastructure is needed so that quality cancer registry data may be collected and reported. There is need to assess all the components, including in-kind contributions, that would optimize and sustain registry activities.

The economic cost of cancer registries study being carried out in Kenya aims to catalogue registry activities and costs. We will modify the Cost-Assessment Tool (CAT) that is used by CDC in the USA to collect data on all current components in two cancer registries. This study is also assessing components required to optimally perform high-quality registry activities by performing a detailed time-and-motion analysis. An important first step to developing national estimates may be non-random sample data. PBCR data covering the whole population may be ideal for many epidemiological studies.

Gathere, Samuel
**NASOPHARYNGEAL CARCINOMA EPIDEMIOLOGY AND RISK
FACTORS IN NAIROBI, KENYA**

Saturday
23 November
2013

Sang Rosemary¹; Samuel Gathere*²; Geoffrey Mutuma²; Damaris Matoko¹
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Background Kenya is considered an intermediate NPC incidence country. However, locally NPC is third to larynx and oral cancers in prevalence in the country at 12.5% of all head and neck cancers in Kenya. There are many barriers to diagnosis including navigation through the healthcare system and this contributes to delay in treatment initiation. The association with EBV virus had also been shown serologically in NPC patients.

Main objective To determine the association of EBV and NPC with the underlying barriers and risk factors.

Methodology Patients were recruited from the Kenyatta National hospital ENT and Head neck department. A clinical questionnaire was administered looking at the demographics and the occupation of the patients. A biopsy was taken and after diagnosis the patient proceeded to the Radiotherapy department. Due to the low prevalence of the disease the numbers were not high and in the lifetime of getting all the biopsies we did capture who had started the radiotherapy or not.

Results A total of 39 patients were recruited with a male to female ratio of 2.5:1. The majority of the patients resided in central province, followed by Nairobi Metropolitan area, Central and Eastern region at 39.4%, 21% and 13.2% respectively. The most common occupation was farming, followed by students and teachers at 49%, 20% and 18% respectively. 13.25% of these patients had been treated for tuberculosis prior to the NPC diagnosis. The commonest symptoms were nasal blockage and neck swelling at 86.8 % and 76.3%. 75% of NPC patients had started radiotherapy treatment by end of two months but 25% were still on radiotherapy waiting list three months after definitive diagnosis of NPC.

Conclusion Nasopharyngeal carcinoma is an important cancer in the head and neck sub site and m
ABSTRACT INCOMPLETE/EXCEEDS LIMIT

WORK- SHOP

AORTIC/IUBMB
oesophageal
cancer
symposium
11h00–13h00
Wednesday
20 November

Gelderblom, Wentzel **MYCOTOXINS**

Wentzel Gelderblom*
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The association of mycotoxins with the development of oesophageal cancer (OC) stems from the contamination of maize, a basic dietary staple, with mycotoxigenic fungi of the genus *Fusarium*. The mycotoxins implicated are the trichothecene deoxynivalenol (DON) and the fumonisins (FB) which commonly occur in maize. Urinary biomarker studies provide supportive evidence as inhabitants residing in a high incidence area for OC are exposed to a cocktail of mycotoxins with FB and DON found to be the major food contaminants. The fumonisins exhibit carcinogenic properties whereas DON is a necrogenic mycotoxin causing different gastrointestinal defects. The FB mycotoxins are non genotoxic carcinogens and a threshold for cancer induction is likely to exist whilst interactions with DON and other risk factors could provide different scenarios in relation to OC development. In this regard the disruption in the lipid metabolism by FB will inevitably impact on the cell membrane integrity and has been associated with disease development via the up- or down-regulated membrane protein receptors/enzymes affecting normal transmembrane signal transduction that may lead to carcinogenesis. The intricate contribution of lipogenic changes associated with cancer remains inadequately understood to some extent overlooked by many cancer researchers. Apart from genetic-driven carcinogenesis, membrane damage incurred during free radical-induced lipid peroxidation may also result in DNA alterations and trigger carcinogenesis. A complex pattern of interactions exist in the development of OC with mycotoxins likely to be key modulators of the disease.

WORK- SHOP

Ghosh, Shubhra

**GLOBAL HEALTH INITIATIVES MODELS AND HOW THEY MAY
CONTRIBUTE TO CARE OF THE WHOLE PATIENT**

AORTIC-IPOS

Academy:

**change through
collaboration**

14h30–17h30

Wednesday

20 November

Shubhra Ghosh*

UT MD Anderson Cancer Center, United States

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Global Health initiatives to increase cancer awareness and extend access to care in resource challenged settings can be most successful when patient care, research, training & education and cancer prevention programs are built in partnerships between government organizations, cancer experts and local healthcare providers and tailored to the needs and challenges of the local communities. The patient-centered programs providing a continuum of care have to ensure that a support system for the care of the whole patient is accessible to the community they serve. While cancer prevention strategies focus on screening and early detection, diet, exercise, smoking-cessation and a healthy lifestyle, access to innovative cancer therapies and palliation including culturally-sensitive psychosocial support are critical to improving the outcomes in cancer patients. At the same time, survivorship programs provide the much needed support for long-term survival and overall well-being of the patient as a whole.

WORK- SHOP

**MD Anderson
global initiative
for cancer care
in Africa**

14h30–17h30

Thursday
21 November

Ghosh, Shubhra

**NETWORKING, PARTNERING AND CAPACITY BUILDING TO
ADVANCE CANCER GLOBALLY: MD ANDERSON'S GLOBAL ACADEMIC
PROGRAMS**

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Cancer has emerged as a worldwide problem with an uneven distribution making this life threatening disease both a global challenge as well as a unique opportunity. Through its Global Academic Programs (GAP), MD Anderson Cancer Center located in Houston, TX builds strategic alliances with other programs and organizations around the world to eliminate cancer. GAP's network of 27 sister institutions is the largest global network of cancer centers working collaboratively on research and education aimed at lessening the world's cancer burden.

The network serves as a platform for investigators to collaborate by providing several tools and resources including seed grants for pilot projects. The GAP network also provides unique opportunities for training and education for cancer care which leads to capacity building in local settings. By pooling resources, the experts are able to study cancers in diverse settings in different geographic regions, races, ethnicities and cultures sharing their knowledge, preferred methods as well as treatment & prevention approaches. The shifting burden of cancer to Africa and the developing nations makes such a collaborative approach even more relevant in the present times.

WORK- SHOP

**Breast cancer:
oncology
therapy & care**
14h30–17h30
Saturday
23 November
2013

Ginsburg, Ophira

MOBILE HEALTH SOLUTIONS FOR BREAST CANCER CASE-FINDING, REFERRAL AND PATIENT NAVIGATION IN RURAL BANGLADESH: A RANDOMIZED CONTROLLED TRIAL

Ophira Ginsburg*¹; Reza Salim²; Mridul Chowdhury³; Dali Dutta¹

¹Women's College Research Institute, University of Toronto, Canada; ²Amader Gram, Bangladesh; ³mPower Social Enterprises, Bangladesh

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Objective Women in rural Bangladesh delay seeking care for serious breast problems (SBPs) until it is too late. We asked if community health workers (CHWs) guided by mobile phones with special applications would be more effective than CHWs without the phones in identifying women with SBPs, and encouraging them to attend for care. We also tested a “patient navigation” model of care.

Methods From July 1–Oct 31 2012, 30 female CHWs interviewed women aged 25+ in a 3-arm randomized controlled trial: Arm A: mobile phone to guide interview, show motivational video, report data, and offer referral if SBP detected. Arm B: mobile phone plus CHW acts as “patient navigator” to address socio-cultural & structural barriers to seeking care. Arm C: control arm (paper & pen, no video). Approvals: Women's College Hospital Research Ethics Board (Toronto, Canada) and District Government Officials, Khulna Bangladesh). Funded by Grand Challenges Canada.

Results In four months, 22 337 women were interviewed. <1% declined participation. 556 women were found to have a SBP. Control group CHWs conducted fewer interviews, reported less complete data, and identified a lower proportion of women with SBPs ($p < 0.0001$). Overall, 53% of women with SBPs attended for care. Those interviewed by CHW “patient navigators” (Arm B) had higher attendance than Arm A (63.3% vs. 43.5%; $p < 0.0001$).

Conclusions CHWs guided by smart phones were more efficient and effective than control CHWs. CHW “patient navigators” were superior to CHWs with phones but without the extra training, in encouraging women with a serious breast problem to attend for proper care. Our mHealth platform & CHW navigation model should be further studied to demonstrate impact on breast cancer in rural Bangladesh.

WORK- SHOP

Goldstein, Alisa GENETICS OF ESOPHAGEAL CANCER

Alisa Goldstein*
National Cancer Institute/NIH, United States

AORTIC/IUBMB
oesophageal
cancer
symposium
14h30–17h30
Wednesday
20 November

Correspondence Goldstein, Alisa
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Esophageal cancer (EC) causes more than 400,000 deaths each year, and represents the sixth leading cause of cancer-related death worldwide. More than half of all EC, predominantly esophageal squamous cell carcinoma (ESCC), occurs in China, and is the fourth leading cause of cancer-related death. ESCC occurs in the Taihang Mountains of North-Central China at some of the highest rates reported for any cancer. Although environmental factors appear to play a predominant role in the etiology of ESCC, risk factors for ESCC in this region include family history and dietary deficiencies and suggest a complex interplay of genetic and environmental factors.

Case-control and cohort studies from this region and other areas of the world have identified multiple low-risk variants that increase susceptibility to ESCC. Additionally, several lines of evidence including familial aggregation and segregation analysis support the existence of high and/or intermediate genetic risks in multiple case families from North-Central China and other high-risk areas of the world. However, the low survival of ESCC and the likely genetic heterogeneity have made searches for these high-risk genes very challenging and no major susceptibility gene for ESCC has yet been identified. Exomic sequencing offers an improved opportunity for identifying high/intermediate risk variants in ESCC. Discovery of high, intermediate, and low risk susceptibility genes should help improve our understanding of cancer biology. In addition, identification of high-risk susceptibility genes may permit risk characterization and detection of persons at particularly high risk who could be targeted for prevention strategies. The current status of the genetics of esophageal cancer in high-risk regions will be presented.

WORK- SHOP

Gombé Mbalawa, Charles

**MANAGING ADVANCED DISEASE AND ANTI-CANCER THERAPIES IN
RESOURCE RESTRICTED SETTINGS**

**National
cancer control**

plans

11h00–13h00

Friday

22 November

2013

Charles Gombé Mbalawa*

CHU de Brazzaville, Republic of Congo

Correspondence Gombé Mbalawa, Charles

Email: gombcharles@yahoo.fr

Background Echimane on 2000, Ly on 2006, Parkin on 2008, writing on cancer in Africa, they had insisted on the high frequency of advanced stage in what were seen cancer patients while their first consultation. But these authors and others were convinced that the better way in fight against cancer was prevention. However the practitioners had the obligation of managing these numerous cancer patients seen in advanced stage, this is our purpose.

Methods from January 1 to October 31, 2010, we had analyzed cancer patients by retrospective study. We had used TNM classification to know the stage of breast and prostate cancer, FIGO staging for cervix and barcelone classification for liver. For diagnosis we had used clinics, biology, medical imaging and pathology. Only the classic means of treatment were available: surgery, chemotherapy, radiotherapy and hormonothérapie. The rate survival was calculated by actuarial methods.

Result during the study period, 213 cancer patients were seen in our oncology department in University Teaching Hospital, among them 153 (71,8%) were in advanced stage. We had seen the followed distribution: 90,2% for prostate, 76,9% for cervix, 65,3% for breast and 51,7% for liver. Rate survival for 18 months was 8%.

Conclusion The weak rate survival, the high proportion of advanced stage are parameters to have national plan of fight against cancer in which prevention will take an important place.

**POSTER
076**

Gopal, Satish

**EARLY EXPERIENCE AFTER DEVELOPING A PATHOLOGY LABORATORY
IN MALAWI, WITH EMPHASIS ON CANCER DIAGNOSES**

Saturday
23 November
2013

Satish Gopal*; Robert Krysiak*; George Liomba*; Dirk Dittmer;
Mina Hosseinipour; Irving Hoffman
UNC Project, Malawi

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Email: gopal@med.unc.edu

Objective To describe experience during the first 20 months of a new pathology laboratory in Lilongwe, with emphasis on cancer diagnoses.

Methods We performed a cross-sectional study of specimens from the Kamuzu Central Hospital pathology laboratory between July 1, 2011 and February 28, 2013. Patient and specimen characteristics and final diagnoses are summarized. Diagnoses were categorized as malignant, premalignant, infectious, other pathology, normal or benign, or nondiagnostic. Patient characteristics associated with premalignancy and malignancy were assessed using logistic regression.

Results Of 2772 specimens, 2758 (99%) with a recorded final diagnosis were included, drawn from 2639 unique patients. Mean age was 38 years and 63% were female. Of those with documented HIV status, 51% had unknown status and 36% with known status were infected. Histologic specimens comprised 91% of cases, and cytologic specimens 9%. Malignant diagnoses were most common overall (n=861, 31%). Among cancers, cervical cancer was most common (n=117, 14%), followed by lymphoma (n=91, 11%), esophageal cancer (n=86, 10%), sarcoma excluding Kaposi sarcoma (n=75, 9%), and breast cancer (n=61, 7%). HIV status was known for 95 (11%) of malignancies, with HIV prevalence ranging from 9% for breast cancer to 81% for cervical cancer. Increasing age was consistently associated with malignancy [bivariable odds ratio 1.24 per decade increase (95% CI 1.19–1.29) among 2685 patients with known age; multivariable odds ratio 1.33 per decade increase (95% CI 1.14–1.56) among 317 patients with known age, gender, and HIV status], while HIV infection and gender were not.

Conclusions Despite selection and referral bias, a new pathology laboratory in Lilongwe has created a robust platform for cancer care and research. Strategies to effectively capture clinical information for pathologically confirmed cancers can allow these data to complement population-based registration.

PLENARY

Gospodarowicz, Mary

CANCER STAGING: A FUNDAMENTAL ELEMENT OF CANCER CONTROL

Pathology
09h10–10h30
Friday
22 November
2013

Mary Gospodarowicz*; James Brierley; Brian O'Sullivan
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The purpose of staging is to aid the clinician in the planning of treatment, to give some indication of prognosis, to assist in evaluation of the results of treatment, to facilitate the exchange of information between clinicians and treatment centres, to contribute to the continuing investigation in cancer, and to support cancer control activities. The TNM Classification is a gold standard for prognostic judgement because it has a powerful correlation with outcomes and is required for treatment decisions. All clinical practice guidelines refer to stage, and the stage is a frequent entry criterion as well as stratification variable in clinical trials. Stage is also used in broader cancer control environment in planning for services and stage shift is an early indicator of the efficacy of screening programs. However, since the TNM classification is a descriptor of the anatomic disease extent it does not describe the tumour biology domain nor does it fully predict treatment response and needs to be supplemented by tumour profile characteristics that indicate qualitative features of the disease in addition to its extent.

Clinical stage describes pre-treatment extent of disease based on assessment with imaging, biopsy information, etc., while pathologic stage is determined at surgery and involves histopathologic examination of the entire tumour sufficient to determine the highest possible T and N categories. While initial treatment recommendations are based on the clinical stage, the recommendations for adjuvant therapy are mostly determined by pathologic stage. Synoptic reporting of tumour pathology includes the designation of the pathologic stage. Recording of cancer stage in hospital or population based cancer registries greatly enhances their value, in assessing the value of screening programs, informs resource allocation, evaluates compliance with treatment guidelines, compares survival trends, enhances cancer control and should be standard.

WORK- SHOP

Radiation and chemotherapy

14h30–17h30

Friday

22 November

2013

Gospodarowicz, Mary

QUALITY ASSURANCE IN RADIATION THERAPY

Mary Gospodarowicz*¹; Michael Milosevic²

¹UICC, Princess Margaret Cancer Centre, University of Toronto, Canada;

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Radiotherapy is a critical ingredient of comprehensive cancer treatment. It has been estimated that anywhere from 40 to 50 percent of all cancer patients would benefit from receiving radiotherapy in course of their illness. Radiotherapy can be used as a sole curative therapy, in combination with surgery and/ or chemotherapy as part of the initial curative treatment approach, in the management of recurrent disease, and as a powerful tool for palliation.

Currently, the supply of radiotherapy services falls short of demand in many parts of the world including many of high income countries. However, the shortage is so pronounced in low and middle income countries that it precludes radiotherapy from being considered as part of cancer management. Fiscal constraints and the pressure to treat as many patients as possible may lead to cost cutting initiatives which in turn may result in compromised staffing levels, limited facilities and less attention to the quality.

The framework for quality of radiation therapy must include consideration of appropriate infrastructure including facilities, equipment (hardware and software), people with skills and credentials and SOPs for operations and processes of care. Once in place, the framework should include regular QA processes for equipment. Monitoring of medical decisions in patient assessment and planning, physics and therapy QA of treatment plans, peer-review of final plans, are further steps in securing safe planning and delivery of RT. Modern techniques (IMRT and IGRT) require additional sophistication of RT QA.

PLENARY

Gospodarowicz, Mary

RADIOTHERAPY IN NON-HODGKIN LYMPHOMAS

Mary Gospodarowicz*
UICC, Canada

Haematology

09h10–10h30

Saturday

23 November

2013

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Radiation therapy (RT) is a very effective treatment in lymphomas. It provides excellent local disease control. However, many patients with even localized lymphoma have occult disseminated disease and require systemic treatment with chemotherapy. Progress in systemic therapies with chemotherapy, immunotherapy and radio-immunotherapy resulted initially in the adoption of the combined modality approach in many lymphomas and more recently in re-evaluation of the role of chemotherapy in the management of lymphomas. At the same time, the progress in radiation therapy has led to improved tumour targeting enabling further reduction in target volumes and radiation toxicity. Most patients with localized non-Hodgkin lymphoma treated with RT are treated with the intent of cure or local disease control. Palliative approach is used only when the condition of the patient and/or the extent or location of the disease make local control unachievable or irrelevant.

This review will consider the role of RT in the following localized follicular and marginal zone lymphoma, selected diffuse primary extranodal lymphoma and in palliation of advanced follicular lymphoma. To optimise the value of RT in the management of non-Hodgkin lymphoma, radiation needs to be considered in the context of disease extent, overall treatment goal, and the relative benefit of various treatment approaches.

WORK- SHOP

Graf, Norbert

ADVANCES IN THE MANAGEMENT OF NEPHROBLASTOMA

Norbert Graf*

Saarland University, Germany

**Paediatric
oncology**

11h00–13h00

Sunday

24 November

2013

Correspondence Graf, Norbert

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Background Wilms tumor is the most common malignant renal tumor of childhood. Prior to the introduction of systemic chemotherapy, Wilms' tumor had a low cure rate if treated by nephrectomy alone, or by nephrectomy plus local radiotherapy, with reported overall survival rates in the range of 11–40%.

Methods Today treatments are based on results of multicenter trials and studies mainly conducted by the International Society of Pediatric Oncology (SIOP) in Europe and the Children's Oncology Group (COG) in Northern America. The main objectives of these trials and studies are to treat patients according to well-defined risk groups in an attempt to achieve the highest cure rates and to minimize acute and late toxicity.

Results The conduct of prospective randomized trials in Wilms tumor over more than 40 years did allow to find risk factors for relapse and survival. The most important risk factors are initial stage (localized or metastatic), local stage after surgery, histological subtype, age and tumor volume. Only few biological markers (LOH 11p and 16q) are used for treatment stratification today. The concept of preoperative chemotherapy resulted in a favorable stage distribution after surgery with fewer tumor ruptures and the possibility to use treatment response as a stratification parameter for further therapy. These prognostic risk factors did improve the cure rates for high-risk patients by intensification of therapy and the quality of life for children with more favorable prognosis by lowering therapy to a minimum.

Conclusions Today more than 90% of patients can be cured in high income countries. In the future we need to find biological risk factors to further stratify and individualize treatment for increasing survival rates. In addition the finding of best treatments for children with nephroblastoma in low income countries is one of the biggest challenges we are facing today.

WORK- SHOP

Groenewald, Pam

ESTIMATING TOBACCO ATTRIBUTABLE MORTALITY USING DEATH CERTIFICATES

Tobacco-related cancers

11h00–13h00

Saturday

23 November

2013

Freddy Sitas¹; Sam Egger¹; Debbie Bradshaw²; Pam Groenewald^{*2}; Ria Laubscher³; Danuta Kielkowski⁴; Richard Peto⁵

¹Cancer Research Division, Cancer Council NSW, Woolloomooloo, NSW, Australia; ²Burden of Disease Unit, South African Medical Research Council, South Africa; ³Biostatistics Unit, South African Medical Research Council, South Africa; ⁴National Health Laboratory Service, South Africa; ⁵Clinical Trial Service Unit and Epidemiological Studies Unit (CTSU), University of Oxford, UK

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Objective To estimate tobacco attributable mortality in South Africa using the question “Was the deceased a smoker five years ago?” which was added to the revised death notification form in 1998.

Methods: Death notifications between 1999 and 2007 were studied. Case control comparisons were used to estimate the smoking-associated relative risks (RR) for several diseases. Cases comprised deaths from causes known to be causally associated with smoking, and controls comprised deaths from medical conditions expected to be unrelated to smoking. Deaths due to HIV, alcohol or external causes were excluded. The RR combined with the smoking prevalences were used to estimate smoking-attributable deaths from certain causes of death and from all causes by population group.

Results There were 573,322 deaths at ages 34–74 years between 1999 and 2007 with complete information for study variables. These comprised 322,092 cases, 159,548 controls and 91,682 exclusions. Smoking prevalence amongst the controls showed variations amongst population groups and were similar to other sources. Smoking attributable fractions for diseases affected by smoking were considerably higher for coloureds than for whites or Africans both due to higher prevalence of smoking and higher RRs in this population group. The leading causes of death due to smoking were TB, cardiovascular disease/stroke, cancers and COPD.

Conclusions A question about previous smoking on the death notification form allows monitoring of the levels of and long term trends in tobacco-attributable mortality in South Africa.

Friday
22 November
2013

Surbhi Grover*¹; Remigo Makufa²; Talkmore Karumekayi²; Anthony Russell³;
Lilie Lin¹; Memory Bvochora²
¹University of Pennsylvania, United States; ²Gaborone Private Hospital,
Botswana; ³Massachusetts General Hospital, United States

Correspondence Grover, Surbhi

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Background Botswana has a high incidence of cervical cancer and most patients are treated with radiation and chemotherapy because of advanced stage of disease at presentation. Until recently, external beam radiation was provided in Botswana at Gaborone Private Hospital (GPH), but all patients were sent to South Africa for brachytherapy. In February 2012, Botswana acquired a Nucletron HDR brachytherapy unit and started performing brachytherapy for all patients in Botswana.

Methods Cervical cancer was determined to be a priority during University of Pennsylvania (UPENN) and Massachusetts General Hospital (MGH) visits in 2011–2012. A series of cervical cancer care team visits from MGH followed by visits from UPENN were organized. A post-survey assessment was conducted to assess the utility of such exchanges. A team consisting of a gynecological radiation oncologist, physicist and gynecological oncology nurse (UPENN visit) spent a week at GPH every 4 months starting February 2012.

Results Visits were focused on clinical care, brachytherapy planning and nursing care and were conducted through participation in clinical care, treatment planning and focused didactics. As a result of the visits, physics/dosimetry staff noted improvement in calculation methods, dose checking and individualized treatment planning; oncology unit manager/nursing staff noted improvement in patient education and symptom management; radiation oncologists noted improvement in insertions and treatment planning methodology. Following necessary future steps were also recognized: procurement of an ultrasound machine for insertions, standardization of treatment approval process, and development of patient education materials.

Conclusion By 2030 over 70% of cancer patients will be diagnosed in the developing world. In addition to implementation of screening programs, treatment capacity building is essential in addressing increasing burden of disease. Visits such as these are an important step

ABSTRACT INCOMPLETE/EXCEEDS LIMIT

Giuliano, Anna

THE EVRI (EFFICACY OF HPV VACCINE TO REDUCE HIV INFECTION)
TRIAL DESIGN

Sunday
24 November
2013

Anna Giuliano*¹; H Botha²; R Glashoff²; L van der Laan²; M Zeier²;
ME Abrahamsen³; S Engelbrecht²; D Taylor⁴

¹Moffitt Cancer Centre, United States; ²Tygerberg Hospital, South Africa;

³Moffitt Cancer Center, United States; ⁴FHI 360, United States

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Objective As HIV treatment becomes more established HIV+ individuals are living longer, resulting in a high burden of cancer as cancer incidence is significantly higher among HIV+ individuals. Therefore, methods to decrease both HIV and cancer incidence are needed. Human papillomavirus (HPV) may increase risk of HIV acquisition by ~ 3-fold in men and women. The purpose of the current trial is to develop and test the infrastructure to conduct a future Phase III HPV Vaccine Efficacy Trial for the prevention of HIV. We hypothesize that HPV vaccination will reduce the incidence of HIV.

Methods Phase II double blind, randomized, controlled HIV Prevention Preparedness Study: quadrivalent HPV vaccine (GARDASIL) vs. placebo. Women 16–24 years were recruited and screened. Eligible participants received either vaccine or placebo on Day 1, months 2 and 6, and followed for a total of 7 months.

Results Between October 2012 and July 2013 923 females were screened for eligibility. 404 were ineligible primarily due to age (36.7%), breastfeeding (12.6%), HIV infection (11.4%), and current pregnancy (10.4%). 470 enrolled females completed a study questionnaire and were screened for HIV and pregnancy, of which 64 were not eligible for randomization due to HIV+ (11.3%) and pregnancy (2.5%). Retention over 7 months is ~ 93%.

Conclusions Young adult women at high risk for HIV are willing to participate in a placebo controlled randomized trial, with a high rate of compliance through the 3 dose vaccine series. A Phase III Trial with HIV as an endpoint is feasible.

Gwede, Clement

RECRUITMENT AND UPTAKE OF COLORECTAL CANCER SCREENING IN A COMMUNITY-BASED STUDY AMONG ADULTS OF AFRICAN ANCESTRY IN THE UNITED STATES

Saturday
23 November
2013

Clement Gwede*¹; Stacy Davis²; Brittany Jackson²; Swapomthi Govindaraju²; Jonathan Wischhusen¹; Cathy Meade¹

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²Moffitt Cancer Center, United States

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Objective The US black population is becoming more diverse with an increasing influx of adult immigrants from the Caribbean and Sub-Saharan Africa. This paper reports on the recruitment and uptake of immunochemical fecal occult blood test (iFOBT) in a colorectal cancer (CRC) screening intervention trial for adults of African ancestry in the US.

Methods A community-based study is underway among average risk US Blacks aged 50–75 years in southwest Florida using a culturally targeted educational intervention and iFOBT. Recruitment strategies included: passive (i.e., community flyer postings, mailings, ads in Black newspapers); active (i.e., face-to-face intercepts, health events) and snowball (i.e., peer nominations) recruitment to enroll a diverse sample of Blacks including immigrants. Enrollment yield and iFOBT uptake were evaluated by gender and foreign born status.

Results To date, 262 people have been evaluated for eligibility: 171 were eligible and 153 were enrolled. The most successful recruitment methods to yield successful enrollment were passive (61%), followed by active (26%) and snowball (13%). 59% of enrolled participants are female and 7% are foreign born. The highest proportion (42%) of enrolled males were recruited actively, compared to 73% of females recruited passively. 90% of enrolled foreign born persons (n=10) were actively recruited. Overall iFOBT screening uptake was 84%. There were no differences in method of recruitment or foreign born status in iFOBT kit return.

Conclusions More personalized efforts to increase enrollment of men and foreign born individuals are needed. The high iFOBT uptake may have direct implications for CRC screening interventions in Africa.

WORK- SHOP

Harford, Joe

**THE THREE MOST PROMINENT FEATURES OF CANCER IN AFRICA:
LATE DIAGNOSIS, LATE DIAGNOSIS, AND LATE DIAGNOSIS**

AORTIC-IPOS

Academy

09h00–10h30

Wednesday

20 November

2013

Joe Harford*

Center for Global Health, National Cancer Institute, National Institutes of Health, United States

Correspondence Harford, Joe

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Cancers in low- and middle-income countries including African countries are more often than not diagnosed at later stages than cancers in higher-income countries, although delay in diagnosis can occur anywhere. In general, patient outcomes when cancers are diagnosed at later stages are poorer than when diagnosis is at earlier stages. The expression “late presentation” is often used, but this expression implies that the problem involves failure of patients to “present” themselves to the healthcare system. In fact, the total delay between the first symptom of disease and treatment includes “patient delay” but also includes “system delay.”

Patient delay is generally defined as the time between the patient becoming aware of some symptom or abnormality and the patient seeking advice from a healthcare practitioner. System delay encompasses the subsequent time it takes to achieve an accurate diagnosis plus that time after diagnosis before treatment is initiated. Both patient delay and system delay are likely contributing to late diagnosis in many African settings.

Most published research has focused on patient delay and has implicated poor symptom recognition or interpretation, psychological factors such as fear and fatalism, financial considerations, lack of access to the healthcare system, and socio-demographic factors. Research on the barriers contributing to patient delay as well as on the deficiencies contributing to system delay across Africa is scant and much needed. Available data on late diagnosis will be reviewed as will published reports on efforts aimed at achieving earlier diagnosis through organized screening programs and/or educational interventions.

WORK- SHOP

Free
communication
of abstracts V
11h00–13h00
Sunday
24 November
2013

Hasahya, Olivia

BELIEFS, ATTITUDES, PERCEPTIONS AND HEALTH SEEKING BEHAVIOURS TOWARDS CERVICAL CANCER: A COMMUNITY- BASED STUDY AMONG WOMEN IN UGANDA FOLLOWING HPV- VACCINATION

Olivia Hasahya*
Global Health (IHCAR), Karolinska Institute, Sweden

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Email: hasahya@yahoo.com

Background Cervical cancer remains a leading cause of morbidity and mortality in Uganda. Despite earlier information campaigns to introduce Human papilloma virus vaccination (HPV) which also targeted cervical cancer, misinterpretation and misunderstandings of the subject remains unexpectedly high. Women in Uganda present with cervical cancer at its advanced stages due to poor health-seeking behaviours, with an associated high mortality rate.

Aim The aim of this study was to explore beliefs, attitudes, perceptions and health seeking behaviours towards cervical cancer amongst women after HPV-vaccination project had been rolled out. Settings: The study was conducted in two districts of central and western Uganda.

Methods A qualitative study design was used. Six Focus group discussions (FGDs) were conducted. This included 36 women of 25–49 years of age. The transcribed data was analysed using latent content analysis.

Results Participants had heard of cervical cancer but still lacked sufficient knowledge about cervical cancer screening. They had an attitude of disapproval of male screening staff and they allegedly believed acquiring infections in association with screening. Cervical cancer was perceived as an incurable disease. Participants did not grasp the concept of screening before symptom debut. Emerged themes included: Concerns about health, Understanding cervical cancer and Barriers to cervical screening.

Conclusion The need for cultural-specific, sensitive information and interventions to address the issues of improving cervical cancer screening uptake is crucial. The context of a society needs to be taken into account when implementing community-based health education.

MEET THE EXPERTS

Holland, Jimmie C

PSYCHOSOCIAL IMPACT OF CANCER DIAGNOSIS

Jimmie C Holland*¹; Beatrice Wiafe Addai*²

¹Memorial Sloan-Kettering Cancer Center, United States; ²C.E.O; Peace and Love Hospitals, Ghana

**Psychosocial
impact of
cancer diagnosis**

07h00–07h50

Saturday

23 November

Correspondence Holland, Jimmie C

Email: hollandj@mskcc.org

The word “distress” has begun to be used to cover the several psychosocial issues that a cancer diagnosis raises, which are universal and cross cultures:

1. dealing with the PHYSICAL symptoms of pain, fatigue, treatment side effects;
2. the PSYCHOLOGICAL effects of sadness and fears;
3. the SOCIAL meaning for the family, for finances and the future;
4. the SPIRITUAL which involves the beliefs that bring comfort to the person; and
5. the EXISTENTIAL which involving seeking the meaning of life in the face of death.

Each particular culture adds its own problems to distress. For example, the STIGMA attached to cancer, particularly in Africa, adds to the distress by making the person feel unacceptable, sometimes to family and others. It is these issues that psycho-oncology seeks to address as it brings attention to care of the whole person.

WORK- SHOP

Holland, Jimmie C

WHAT MAKES PEOPLE WITH TERMINAL CANCER SUFFER?

Jimmie C Holland*

Memorial Sloan-Kettering Cancer Center, United States

Palliative care II

14h30–17h30

Friday

22 November

2013

Correspondence Holland, Jimmie C

Email: hollandj@mskcc.org

Palliative care has as its goal to relieve “pain and suffering” It is the “suffering” aspects that this lecture will address. The PHYSICAL SYMPTOMS and PAIN are often addressed but the “suffering” side has continued to be neglected by many programs. The “suffering” is called “distress” in many parts of the world, but they mean the same thing:

1. PSYCHOLOGICAL: Coping with the fears, sadness, and depression that come with advancing illness;
2. SOCIAL: Coping with the concerns for the family when the person is gone, in terms of financial and emotional support;
3. EXISTENTIAL / SPIRITUAL: Using spiritual and religious beliefs about life and death to cope with life in the face of approaching death.

These issues are increasingly recognized as being extremely important in the palliative care of patients. They must be included in developing an optimal quality palliative care program.

Hordofa, Arare

**DEVELOPMENT OF A PAIN SCALE FOR VERY YOUNG CHILDREN WITH
CANCER IN ETHIOPIA**

Arare Hordofa*

Tikur Anbessa Hospital, Ethiopia

Saturday
23 November
2013

Correspondence Hordofa, Arare

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Objective Tikur Anbessa Hospital (Addis Ababa, Ethiopia) offers the only cancer care in the country. Pain perception in very young children is complex and often difficult to assess. Their pain management is not always optimized. The nurses requested an in-service by a palliative-care trained pediatrician to discuss nursing issues of pain in children with cancer. They recognized that they had to rely on parent report, child behavior, facial expression and physical movement for pain assessment. The nurses had tried using the Wong–Baker Faces scale, but the young children and parents found it difficult to use.

Methods The nurses created a graduated scale with local animals and a color scale to test usability with children under 5 years and parents. Initially, the two nurse-created pain scales were tested with parents.

Results The parents preferred the animal scale, which is now being used with the children to determine effectiveness. The back of the scale has a symptom checklist in both Amharic and English (for visiting nurses). Future plans include expanding a nursing education program for pain assessment and control with a nurse-led one-hour teaching module.

Conclusions It is essential that methods to assess pain in very young children are meaningful for the local culture. The use of some well-known pain scales may not be helpful for parents who have no education or exposure to tertiary healthcare or experience with scales. It is essential that nurses work to create materials that improve pain assessment and therefore, pain control in countries with limited resources.

WORK- SHOP

Free
communication
of abstracts III
11h00–13h00
Saturday
23 November
2013

Horner, Marie-Joséphé

A BREAST CANCER RECORD LINKAGE ANALYSIS BETWEEN THE CANCER REGISTRY AND PATHOLOGY DATABASE AT KAMUZU CENTRAL HOSPITAL IN MALAWI: CHALLENGES AND LESSONS LEARNED

Marie-Joséphé Horner*¹; Arti Ajmani¹; Ande White Salima²; Chrissie Chilima²;
Carol Shores¹; Satish Gopal¹

¹University of North Carolina-Chapel Hill, United States; ²Kamuzu Central
Hospital Cancer Registry, Lilongwe, Malawi

Correspondence Horner, Marie-Joséphé

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Objective Since 2009, Kamuzu Central Hospital (KCH) in Malawi has maintained a hospital-based registry of all patients with suspected cancer. In 2011, a separate pathology database was created after the opening of a new pathology laboratory. To critically examine cancer data sources, we undertook a record linkage analysis using the two datasets with a specific focus on breast cancer.

Methods All suspected breast cancer cases in the KCH cancer registry during 2012 were matched to the KCH pathology database. Similarly, all pathologically confirmed breast cancers in the pathology database were reverse matched to the cancer registry. Record linkage was done by matching on diagnosis date, specimen collection date, hospital ward, age, name and sex.

Results In 2012, 32 clinically suspected breast cancer cases were recorded in the cancer registry. Of these, only 17 (53%) had any pathologic diagnosis recorded, with 14 of 17 having confirmed breast cancer. For the other three patients, two had benign conditions and one lymphoma. An additional 65 patients with breast biopsy specimens in the pathology database were not found in the cancer registry. Of these, 23 (35%) had confirmed breast cancer, with the remaining 42 (65%) having non-malignant conditions.

Conclusion Our record linkage analysis revealed significant limitations in existing cancer data sources at a national teaching hospital. Many patients with suspected breast cancer did not have pathologic confirmation even after these services became available. Similarly, many confirmed breast cancers were missing from the cancer registry. Additional record linkage for other cancers is planned. Ongoing efforts to improve cancer registration, including better ascertainment, more frequent histologic confirmation, and improved data systems, are needed to more fully understand cancer occurrence in our setting.

WORK- SHOP

HPV cervical
cancer network
in Francophone
Africa

14h30–17h30

Thursday

21 November

Horo, Apollinaire

CERVICAL CANCER SCREENING BY VISUAL INSPECTION IN COTE D'IVOIRE: OPERATIONAL AND CLINICAL ASPECTS ACCORDING TO HIV STATUS

Apollinaire Horo*¹; Antoine Jaquet²; Didier Ekouevi³; Patrick Coffie⁴; Mamouroué Kone⁵; Francois Dabis⁶

¹Universite Felix Houphouet Boigny/IeDEA West Africa Collaboration/Universite Bourdeaux 2, Cote D'Ivoire; ²Universite Bourdeaux 2/IeDEA, France; ³Universite Lome/IeDEA, Togo; ⁴Universite Felix Houphouet Boigny/IeDEA, Cote D'Ivoire; ⁵Universite Felix Houphouet Boigny, Cote D'Ivoire; ⁶Universite Bourdeaux 2/IeDEA, France

Correspondence Horo, Apollinaire | Email: horoapollinaire@yahoo.fr

Background Cervical cancer screening is not yet standard of care of women attending HIV care clinics in Africa and presents operational challenges that need to be addressed.

Methods A cervical cancer screening program based on visual inspection methods was conducted in clinics providing antiretroviral treatment (ART) in Abidjan, Côte d'Ivoire. An itinerant team of midwives was in charge of proposing cervical cancer screening to all HIV-positive women enrolled in ART clinics as well as to HIV-negative women who were attending the Abidjan national blood donor clinic. Positively screened women were systematically referred to a colposcopic examination. A phone-based tracking procedure was implemented to reach positively screened women who did not attend the medical consultation. The association between HIV status and cervical cancer screening outcomes was estimated using a multivariate logistic model.

Results The frequency of positive visual inspection was 9.0% (95% CI 8.0–10.0) in the 2,998 HIV-positive women and 3.9% (95% CI 2.7–5.1) in the 1,047 HIV-negative ones ($p < 10^{-4}$). In multivariate analysis, HIV infection was associated with a higher risk of positive visual inspection [OR = 2.28 (95% CI 1.61–3.23)] as well as more extensive lesions involving the endocervical canal [OR = 2.42 (95% CI 1.15–5.08)]. The use of a phone-based tracking procedure enabled a significant reduction of women not attending medical consultation after initial positive screening from 36.5% to 19.8% ($p < 10^{-4}$).

Conclusion The higher frequency of positive visual inspection among HIV-positive women supports the need to extend cervical cancer screening program to all HIV clinics in West Africa. Women loss to follow-up after being positively screened is a major concern in cervical screening programs but yet, partly amenable to a phone tracking procedure.

Keywords Cervical cancer, Screening, Visual inspection, HIV/AIDS, Africa

WORK- SHOP

Horo, Apollinaire

CERVICAL HUMAN PAPILLOMAVIRUS AND HIV INFECTION IN WOMEN OF CHILD-BEARING AGE IN ABIDJAN, COTE D'IVOIRE

**HPV cervical
cancer network
in Francophone
Africa**

14h30–17h30

Thursday
21 November

Apollinaire Horo*¹; Antoine Jaquet²; Didier Ekouevi³;

Didi-Kouko Coulibaly Judith⁴; Herve Fleury⁵; Francois Dabis²

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Background We sought to document the association of Human immunodeficiency Virus (HIV) infection and immunodeficiency with oncogenic Human Papillomavirus (HPV) infection in women with no cervical neoplastic lesions identified through a cervical cancer screening programme in Côte d'Ivoire.

Methods A consecutive sample of women stratified on their HIV status and attending the national blood donor clinic or the closest HIV clinic was recruited during a cervical cancer screening programme based on the visual inspection. Diagnosis of HPV infection and genotype identification were based on the Linear Array; HPV test.

Results A total of 445 (254 HIV-positive and 191 HIV-negative) women were included. The prevalence of oncogenic HPV infection was 53.9% (95% confidence interval (CI) 47.9–59.9) in HIV-positive women and 33.7% (95% CI 27.1–40.3) in HIV-negative women (odds ratio (OR) = 2.3 (95% CI 1.5–3.3)). In multivariate analysis, HIV-positive women with a CD4 count <200 cells/mm³ or between 200 and 499 cells/mm³ were more likely to harbour an oncogenic HPV compared with women with a CD4 count ≥ 500 cells/mm³ with OR of 2.8 (95% CI 1.1–8.1) and 1.7 (95% CI 1.0–2.9), respectively.

Conclusion A high prevalence of oncogenic HPV was found in women with no cervical neoplastic lesions, especially in HIV-positive women. Despite antiretroviral use, immunodeficiency was a main determinant of the presence of oncogenic HPV.

WORK- SHOP

Hummeida, Moawia

NEOADJUVANT CHEMOTHERAPY VERSUS PRIMARY SURGERY IN ADVANCED STAGED OVARIAN CANCER

**Free
communication
of abstracts II**
14h30–17h30
Friday
22 November
2013

Moawia Hummeida*
School of Medicine, Alneelain University, Sudan

Correspondence Hummeida, Moawia
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Background Epithelial ovarian carcinoma is the most lethal gynaecological cancer worldwide. The standard surgical approach for advanced cases is optimal cytoreductive surgery followed by adjuvant chemotherapy. This can be achieved in only 40–50% of cases and not always carry the expected outcome, especially among elderly patients.

Objectives To evaluate the outcome of patients with advanced-staged epithelial ovarian cancer treated with neoadjuvant chemotherapy and interval debulking versus primary surgery and adjuvant chemotherapy!

Methodology This is a prospective, observational comparative hospital based study done in Khartoum hospital Sudan. 90 cases were selected according to certain inclusion criteria. 40% patient received neoadjuvant chemotherapy followed by debulking surgery, and 60% of patients underwent upfront surgery followed by adjuvant chemotherapy.

Results Interval radical surgery was performed in all patients following Neoadjuvant chemotherapy, while this was achievable in only 50% cases who underwent primary surgery

Conclusion Neoadjuvant chemotherapy and interval optimal cytoreduction results in fewer and simpler operations. There is less morbidity and mortality, with improved perioperative outcomes, decreased blood loss and shorter hospitalizations.

POSTER
079

Saturday
23 November
2013

Hummeida, Moawia

**SURVEILLANCE OF ENDOMETRIAL HYPERPLASIA WITH
TRANSVAGINAL ULTRASOUND AMONG SUDANESE BREAST CANCER
WOMEN ON TAMOXIFEN THERAPY**

Moawia Hummeida*
School of Medicine, Alneelain University, Sudan

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Background and objectives Tamoxifen universally used as adjuvant therapy for women with breast carcinoma, has estrogenic effect on the endometrium. Association with endometrial cancer with an estimated annual risk of 2/1000 women has been reported. The magnitude of the risk in term of treatment duration, age, dose, varies between different studies. Although benefits outweigh this risk, regular gynecological surveillance is mandatory to prevent this complication bearing in mind the new trend of extending Tamoxifen use for 10 years. Endometrial thickness has demonstrated high accuracy in diagnosing endometrial hyperplasia and cancer. However, the value of routine screening has not been established, and the optimum time and method of surveillance has not been determined.

Material and method This is a prospective observational study involving patients with breast cancer on Tamoxifen therapy, to survey risk of Tamoxifen-induced endometrial hyperplastic changes, using Transvaginal ultrasound. 140 breast cancer patients, on Tamoxifen therapy for more than 6 months, were subjected to Transvaginal ultrasound examination of endometrial thickness.

Results Average endometrial thickness was 11.2 mm. Statistically analyzed, the results showed significant association between endometrial thickness and duration of Tamoxifen use.

Conclusion and recommendation Patients on long term Tamoxifen therapy should regularly be screened for endometrial hyperplasia and cancer. Detected early, these premalignant changes are amenable to treatment and cure at appropriate time.

WORK- SHOP

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Huo, Dezheng

GENOME-WIDE ASSOCIATION STUDIES OF BREAST CANCER IN WOMEN OF AFRICAN ANCESTRY IDENTIFIES NOVEL SUSCEPTIBILITY VARIANTS

Dezheng Huo*¹; Temidayo Ogundiran²; Yonglan Zheng¹; Gladys Falusi²; Oladosu Ojengbede²; Clement Adebamowo³; Nancy Cox¹; Olufunmilayo Olopade¹

¹The University of Chicago, United States; ²University of Ibadan, Nigeria;

³University of Maryland, United States

Correspondence Huo, Dezheng

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Objective Breast cancer affects more than 1.1 million women each year in the world and it is one of top two cancers affecting women in Africa. In the past five years, a number of genome-wide association studies (GWAS) have identified more than 70 breast cancer susceptibility loci, but most of the susceptibility single nucleotide polymorphisms (SNPs) were discovered and validated in Caucasian women.

Methods To identify additional novel breast cancer susceptibility variants, we conducted a GWAS in women of African ancestry, including Nigerians, African Barbadians, and African Americans. A total of 1,657 cases and 2,029 controls were genotyped using the Illumina HumanOmni2.5 array.

Results In total, 2,116,365 SNPs were genotyped and passed the extensive quality control. Of the 27 previous GWAS-identified loci in women of European or Asian ancestry, only 4 loci (5p15.33/TERT, rs10069690; 6q25.1/ESR1/C6orf97, rs9397435; 14q31.3/GALC, rs4322600; and 16q12/TOX3, rs3104793) were observed to be significantly associated with breast cancer risk in women of African descent ($p < 0.05$). We also identified several novel loci for breast cancer, including 5q12.3, 5q15, 8q24.3, 9p22.3, 12p12.1, 13q31.1, and 14q24.2 ($p < 0.00001$). Further studies in women of African ancestry are on-going to validate these novel breast cancer susceptibility loci.

Conclusions Our study highlights the importance and necessity of conducting breast cancer genetic studies in diverse populations. To reliably apply findings of genotype-phenotype associations based on common low-penetrance alleles to breast cancer risk prediction in the clinic, further replication and validation of GWAS findings using women of African ancestry are warranted.

WORK- SHOP

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Hurribunce, Ashwin

**BUSINESS PRINCIPLES & PRACTICES: DO THEY HAVE A PLACE
IN A HEALTH CAMPAIGN POWERED BY A PUBLIC BENEFIT
ORGANISATION-NON-PROFIT COMPANY?**

Ashwin Hurribunce*

Cause marketing fundraisers – Pinkdrive, South Africa

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There are myriad approaches to the design and delivery of a health campaign. Most are largely driven by the foresight and competence of healthcare practitioners. What is the result when the same campaign is driven by the foresight and competence of person/s that are business practitioners? This will be illustrated by sharing real experiences with the audience using the Pink Drive campaign.

Use will be made of business competences and experiences, showing how these have been adopted and adapted wherever the case may be. Business design, distinctive business capability, business processes, value chains and application of the business cycle will form the systemic pillars of the discourse. In addition, all aspects of governance, risk and compliance will be addressed.

The outcome of the presentation discourse is to hopefully convince the audience the answers to the challenges we face is not the preserve of a few. We must leverage our collective ability to prosecute and overcome the challenges. In an environment where ‘to do more with less’ is the order of the day we are convinced that the approach that will be shared will offer precise ways to address increasing burden in the presence of under-resourcing. As a public benefit organisation and non-profit company, a conversion ratio of 25 cents in a rand for overheads vs. 75 cents in a rand for service delivery is a daily and achievable reality – living the Pareto principle.

WORK- SHOP

Igharo, Christopher

LESSONS FROM NIGERIA'S MORPHINE PRODUCTION PROGRAMME

Christopher Igharo*

Nigeria Federal Ministry of Health, Nigeria

Pain

management

11h00–13h00

Saturday

23 November

2013

Correspondence Igharo, Christopher

Email: igharo@treatthepain.org

Background In February 2012, the government of Nigeria announced a new initiative to improve access to pain relief. Assisted by Treat the Pain, a program of the American Cancer Society, the government of Nigeria imported 19kg of pulverized morphine sulphate in January 2013 for reconstitution into oral morphine solution.

Progress Production of oral morphine solution in Nigeria is decentralized. Eighteen tertiary health facilities have collected a total of 6kg of pulverized morphine sulphate from the Federal Medical Stores. Health facilities are reconstituting into oral morphine solution and dispensing to patients to manage moderate to severe pains, especially cancer patients. Standard operating procedures for collection and reconstitution of pulverized morphine sulphate into oral morphine solution have been developed to guide facilities. Tools to track production and consumption of oral morphine solution have also been developed and are being used at the health facilities for appropriate documentation. On-going support visits to institutions to monitor progress in production resulted in offering amber plastic bottles to facilities that could not source them.

Result Production of oral morphine solution at tertiary health facilities has resulted in more than 80% cost reduction to patients, as compared to the imported stock.

**POSTER
080**

Ilunga Nikulu, Julien

**LE RÉTINOBLASTOME: UNE ÉTUDE RÉTROSPECTIVE DE 27 CAS DE
2008 À 2012 À LUBUMBASHI**

Sunday
24 November
2013

Julien Ilunga Nikulu*¹; Robert Lukamba Mbuli²; Smith Numbi Ngoy²

¹Ligue Congalaise Contre Le Cancer/Universite de Lubumbashi, Democratic Republic of Congo; ²Universite de Lubumbashi, Democratic Republic of Congo

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Pour déterminer les aspects épidémiologiques, l'évolution et la prise en charge du rétinoblastome à Lubumbashi, une étude rétrospective a été menée sur tous les cas diagnostiqués cliniquement ou histologiquement comme rétinoblastome de 2008 à 2012 aux Cliniques Universitaires de Lubumbashi. Les observations montrent que l'âge moyen des patients était de $3,2 \pm 1,7$ ans, le sexe masculin était atteint dans 59%, l'œil droit dans 33% et les deux yeux dans 7% des cas. La moitié des patients n'avait pas reçu un traitement spécifique. Seuls 26% des patients avaient eu droit au traitement spécifique (chirurgie avec chimiothérapie adjuvante). Il y avait respectivement 14,8% des cas de rémission, 14,8% de décès et 7,4% des cas de récurrence, 62,6% des perdus de vue. Ces observations, bien que non représentatives, traduisent les réalités de la plupart des pays africains. Il y a donc des efforts à conjuguer. Des moyens doivent être mis en jeu par les autorités politico-administratives pour créer des centres spécialisés d'oncologie. Le personnel médical doit être correctement formé et les parents suffisamment sensibilisés pour aider au diagnostic précoce et accepter les conditions d'une prise en charge adéquate.

PLENARY

Incrocci, Luca

HYPOFRACTIONATION FOR PROSTATE CANCER

Luca Incrocci*
Erasmus MC, Netherlands

Urology

09h10–10h30

Friday

22 November
2013

Correspondence Incrocci, Luca
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Over recent years the number of patients diagnosed with prostate cancer has hugely increased because of routine prostate-specific antigen testing. For a large proportion of prostate cancer patients, external-beam radiotherapy will be the treatment of choice. In the last decade substantial improvements have been made in the irradiation techniques and treatment outcome has significantly improved. Recent randomized trials have shown a significant and substantial increase in relapse free survival with dose escalation to 78 Gy, made possible by intensity-modulated radiotherapy and image guided techniques.

An important biological parameter describing the response of tissues to fractionation is the repair capacity (α/β ratio). Generally, late responding tissues are characterized by a relatively low α/β ratio (3–4 Gy) and are sensitive to large fraction sizes. Tumor and acute responding tissues are characterized by a high α/β ratio (10 Gy) and are relatively insensitive to fraction size. Prostate cancer has a highly atypical growth pattern in comparison with other malignancies. The disparity between the α/β ratio for late complications and the low α/β ratio for prostate cancer widens the therapeutic window by treating prostate cancer with hypofractionation.

Hypofractionated schedules for prostate cancer could lead to a high therapeutic gain delivering a higher biological dose to the prostate without increasing toxicity. Furthermore hypofractionation offers economic and logistic advantages. In the randomized phase III Dutch Hypofractionation Trial (HYPRO) no significant increase in acute toxicity has been observed when comparing 64.6 Gy (19 fractions/3.4 Gy) with the common regimen of 78 Gy (39 fractions/2 Gy).

WORK- SHOP

Cancer and sexual health

11h00–13h00

Thursday

21 November

2013

Incrocci, Luca

IS THERE A SEXUAL LIFE AFTER TREATMENT OF PROSTATE CANCER?

Luca Incrocci*

Erasmus MC, Netherlands

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Sexual dysfunction is one of the more common consequences of prostate cancer treatment. Sexual dysfunction in cancer patients may result from biological, psychological and social factors. Radiation therapy is together with radical prostatectomy the most effective treatment for localized disease. According to the surgical technique applied, percentages of erectile dysfunction (ED) after surgery vary from 30 to 100%. Published rates of ED following external-beam radiotherapy vary from 7–80%, and even after brachytherapy this percentage may be as high as 60%.

The etiology of ED after radiotherapy of prostate cancer is multi-factorial. Vascular, neurogenic and psychogenic factors are often reported, though a vascular mechanism seems more likely to be involved. The damage after surgery seems to be neurogenic.

The oral drugs sildenafil, tadalafil and vardenafil (phosphodiesterase type 5 inhibitors) are effective to treat ED in about half of the patients after radiotherapy, but these percentages are lower after surgery. Different factors are involved in these differences, such as age, surgical techniques used, and comorbidities.

Patients and their partners need to be adequately counselled on the effects of cancer treatment on their sexual life and relationship, about the different treatment possibilities and reassured that they can be able to enjoy a normal sexual life. Unfortunately, sexual counselling has not become yet a routine part of oncology care in most hospitals, but this should be routinely provided.

WORK- SHOP

Irabor, David

CHALLENGES IN THE MANAGEMENT OF COLORECTAL CANCER IN NIGERIA, WEST AFRICA

Colorectal cancer

11h00–13h00

Sunday

24 November

2013

David Irabor*

College of Medicine University of Ibadan, Nigeria

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Email: dirabor@comui.edu.ng

Colorectal cancer was regarded as a rare disease in native West Africans. It is now accepted as an established disease with a rising incidence. The complete management of this disease involves extirpative surgery and adjuvant treatment with combination cytotoxic chemotherapy. Results of treatment of this disease are poor generally and the various challenges encountered by care-givers may be summarized as follows:

The 'Patient' factor:

1. Ignorance (which leads to unfavorable health-seeking behavior)
2. Poverty
3. Gullibility (under which falls religion and alternative treatment)
4. Cultural taboos (which lead to refusal of colostomy-based treatments)
5. Late presentation (effect of 1–4)

The 'Country' factor:

1. Politics (teaching hospitals in all 30 states without appropriate specialists, inadequate budget for health, manifestoes of 'free health for all' not fulfilled)
2. Manpower (not enough; major cancer centres over-subscribed)
3. Infra-structure (inadequate screening modalities, lack of public enlightenment messages for awareness, only 2 government centers have functioning radiotherapy machines, staplers and cytotoxic drugs have to be imported).
4. Basic amenities like uninterrupted electricity and water supply are lacking, making it difficult to plan/complete operation lists leading to postponements and cancellation of lists.
5. Union activities leading to un-necessary strikes (in my opinion).

The 'Genetics' factor:

CRC in the native African is probably different from that of Caucasians and more aggressive.

POSTER 081

Thursday
21 November
2013

Isanga, Anthony

THE DILEMMA OF PATIENTS WITH CANCER AND THEIR TRADITIONAL HEALERS: AN APPROACH TO MANAGING CERVICAL CANCER AMONG RURAL WOMEN IN UGANDA

Anthony Isanga*; Anita Sseruwagi
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Background Uganda, like the majority of countries in Africa, has a great burden of cancer, with less than 35% of persons diagnosed with this disease surviving more than five years. For many of these patients particularly rural women, their first line of treatment is provided by traditional or other alternative healers than our scientific medical services, which often delays access to evidence-based medical treatments.

Objectives Our objective is to assess the use and impact of traditional and alternative medical treatment by cancer patients, its implications and to explore possibilities for greater understanding and cooperation between these practitioners and their health systems with scientific medicine.

Method This is a descriptive cross-sectional study of referred aversive cervical cancer patients who presented themselves to the sampled health centres in Luweero where the study was conducted, as well as the traditional and alternative health care providers they may have patronized before coming to the health centres for support, including focus group discussions with the latter. Data collection was planned from a sample of 400 newly diagnosed cervical cancer patients sampled in Kasaala Health Centre III, Mulajje and St. Francis Kakooge Health Centres II, Luweero District who presented themselves for screening against cervical cancer within a 1-year period; 209 patients have been interviewed to date towards the end of the first 6 months of the study.

Result Fifty (50 or 24%) of the 209 participants have visited traditional or alternative healers before coming to the health facilities. Twelve (15 or 30.0%) of the 50 would be willing to take the researchers to traditional healers, 14 (28.0%) are unsure while 21 (42.0%) said that they will not assist or take the researchers to their traditional healers.

Conclusion This study is on course and promises to open up some avenues for the improvement of our understanding and better cooperation with alternative healers.

Friday
22 November
2013

Itsura, Peter

**NEOADJUVANT CISPLATIN FOR CERVICAL CANCER AT MOI
TEACHING AND REFERRAL HOSPITAL, ELDORET, KENYA:
TWO YEAR EXPERIENCE**

Peter Itsura*¹; Elkanah Omenge¹; Hellen Muliro¹; Luc van Lonkhuijzen²;
Barry Rosen³

¹Moi University, Kenya; ²Centre for Gynaecology Oncology Amsterdam,
Netherlands; ³University of Toronto, Canada

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Objective In Sub Saharan Africa access to radiation therapy for women with advanced cervical cancer is poor due to the scarcity of radiation machines en high cost. We describe our experience with neoadjuvant chemotherapy for stage IB2 and selected stage II cervical cancers.

Methods All women identified with cervical cancer stage IB2, with stage IIA or with stage IIB with smaller tumors and who were not willing or able to pay for radiotherapy were offered neoadjuvant chemotherapy. We gave cisplatin 50 mg/m² every two weeks and reassessed after the second course. If the tumors had reduced in size they were offered radical hysterectomy with pelvic lymphadenectomy. Patient characteristics and outcomes are collected prospectively in an electronic database.

Results 63 women were given neoadjuvant chemotherapy. Of these 25 women went on to have a radical hysterectomy, 5 were aborted intraoperatively because the tumor was deemed not resectable. Women who were operated had an average of 2.4 courses of cisplatin chemotherapy before the operation. In 33 cases tumor size did not respond. Most of these women went on to receive palliative treatment.

Conclusion Neoadjuvant chemotherapy is feasible in a low resource setting such as Kenya. It allows radical surgery even in the more locally advanced tumors that would otherwise have to be referred for palliative care. Not all women however will respond enough to be eligible for a radical hysterectomy. Whether this approach is improving outcome for these women will need to be established in the future when our data mature.

WORK- SHOP

Izzo, Francesco

HCC LOCAL ABLATION: RADIOFREQUENCY ABLATION OF MALIGNANT LIVER TUMORS IN 304 PATIENTS

Liver cancer
11h00–13h00
Saturday
23 November
2013

Francesco Izzo*; Vittorio Albino; Raffaele Palaia; Mauro Piccirillo;
Maddalena Leongito; Vincenza Granata
National Cancer Institute of Naples, Italy

Correspondence Izzo, Francesco
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Background Many patients with hepatocellular cancer (HCC) are not candidates for liver resection because of tumor number, location near major vessels, or coexistent cirrhosis. Radiofrequency ablation (RFA) is a technique that permits local treatment in some of these unresectable patients by producing heat-induced coagulative necrosis. We performed this study to assess:

1. the complication rate, and
2. treatment efficacy associated with RFA of liver malignancies.

Methods All patients are entered and followed on a prospective study of RFA of liver tumors. RFA is performed percutaneously or during laparotomy based on size, number, and location of tumors, with each tumor treated following an established protocol. Intraoperative or transcutaneous ultrasonography is used to guide placement of the RF multiple array, monopolar needle electrode and to monitor the RFA treatment.

Results 304 patients were treated from January 2008 to December 2010. RFA was performed percutaneously in 200 patients (66%), and during laparoscopy in 104 (34%). A total of 489 tumors in the 304 patients were treated with RFA. With a median follow-up of 24 months, local recurrence of tumor at the RFA site has developed in 27 patients (9%); the majority of these were tumors >5cm in diameter. New liver or extrahepatic metastases have developed in 47% of the patients. There has been a single death from myocardial infarction on post-RFA day 3 (0.3% mortality rate), and 5 other patients developed complications (2 perihepatic abscesses, 2 biliary fistulae, 1 delayed bleed into the RFA lesion) for a 2% overall complication rate.

Conclusions: Percutaneous or open RFA for malignant liver tumors is safe, with low morbidity and mortality rates. Local recurrence is infrequent and usually occurs in larger tumors, thus, we no longer treat tumors >5–6cm diameter with currently available probes and equipment.

WORK- SHOP

AIDS-related malignancies

11h00–13h00

Sunday

24 November

2013

Jacobson, Judith S

US–AFRICA PARTNERSHIPS TO BUILD CAPACITY FOR RESEARCH IN HIV AND CANCER: THE COLUMBIA UNIVERSITY AND SOUTH AFRICA PARTNERSHIP

Judith S Jacobson*; Alfred I Neugut
Columbia University, United States

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In 2010, Dr Alfred Neugut as PI and I as co-PI received one of nine 3-year D43 training grants; ours was for collaborations with the Universities of KwaZulu-Natal in Durban, the Witwatersrand in Johannesburg and Stellenbosch in Cape Town, South Africa. The mission was to help scientists there become productive partners with us in research on HIV and malignancies, eventually generating hypothesis-driven studies that could compete for support from other funding sources. While facilitating research on KS, lymphoma, and cervical cancer, we also hoped, given conditions in South Africa, to study the effects of HIV on non-AIDS-defining cancers.

In three years, we have brought 25 trainees, from pre-doctorates to department heads, to Columbia. They take short courses in research methods, develop a project with mentors, and continue to work with the mentors by email and Skype when they return to South Africa. We have several published papers, plus abstracts at AORTIC. One study of 1092 breast cancer patients in Soweto found that 19% tested HIV+; they were younger than HIV-negative patients ($p < 0.001$) but not different in tumor characteristics.

Another study of cervical cancer patients referred for chemoradiation in Cape Town found that the 59 HIV+ presented with more advanced disease and were less likely to complete treatment than the 324 HIV- patients. I am supervising master's theses and dissertations, including one on biomarkers of HIV in Burkitt lymphoma. Former trainees from several institutions are collaborating to study hepatocellular carcinoma, HIV, and HBV. Several grants have been submitted, and a few have been funded, so we are fulfilling the mission.

WORK- SHOP

**Joint AORTIC-
ASCO
symposium**
14h30–17h30
Saturday
23 November
2013

Jain, Rakesh K

**NORMALIZING TUMOR MICROENVIRONMENT TO TREAT CANCER:
BENCH TO BEDSIDE TO BIOMARKERS**

Rakesh K Jain*

Harvard Medical School and Massachusetts General Hospital, United States

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For almost four decades, our research has focused on one challenge: improving the delivery and efficacy of anti-cancer therapeutics. Working on the hypothesis that the abnormal tumor microenvironment – characterized by hypoxia, low pH, high interstitial fluid pressure and solid stress – fuels tumor progression and treatment resistance, we developed an array of novel imaging technologies and animal models as well as mathematical models to unravel the complex biology of tumors. Using these tools, we demonstrated that the blood and lymphatic vasculature, fibroblasts, immune cells and the extracellular matrix associated with tumors are abnormal, which together create a hostile tumor microenvironment. We next hypothesized that agents that induce “normalization” of the microenvironment can improve the treatment outcome. Indeed, we demonstrated that judicious use of antiangiogenic agents – originally designed to starve tumors – could transiently “normalize” tumor vasculature, alleviate hypoxia, increase delivery of drugs and anti-tumor immune cells, and improve the outcome of various therapies.

Our trials of antiangiogenics in newly diagnosed and recurrent glioblastoma patients supported this concept. They revealed that the patients whose tumor blood perfusion/oxygenation increased in response to cediranib survived 6–9 months longer than those whose blood perfusion/oxygenation did not increase. The normalization hypothesis also explained how anti-VEGF agents could improve vision in patients with wet age-related macular degeneration, and opened doors to treating other non-malignant diseases harboring abnormal vasculature, such as neurofibromatosis-2, which can lead to deafness. More recently, we discovered that blocking PlGF – a member of the VEGF family – could block growth and spread of pediatric medulloblastoma.

Reference Jain RK. Normalizing tumor microenvironment to treat cancer: Bench to bedside to biomarkers. *J Clinical Oncology* 31:2205–18 (2013).

WORK- SHOP

Jalloh, Mohamed

OBSERVATIONAL TREATMENT OF PROSTATE CANCER: PERSPECTIVES IN AFRICA

Prostate cancer

14h30–17h30

Saturday

23 November

2013

Mohamed Jalloh*

Hopital General de Grand Yoff Senegal and University of California
San Francisco, United States

Correspondence Jalloh, Mohamed

Email: jmohamed60@yahoo.fr

Prostate cancer is the leading non-cutaneous male cancer worldwide. Due to the repeated use of Prostate Specific Antigen (PSA) testing, prostate cancer has been increasingly diagnosed with early stage, low risk disease. Subsequently, we observe more and more aggressive treatments of such patients, therefore exposing them to the risks of treatment-related morbidity and quality of life impact. There are many treatment modalities and in many cases there is no proven superiority of one primary treatment over another. Considering the overtreatment and subsequent risk of treatment-related quality of life impact in one hand and the uncertainty regarding the potential for progression of diagnosed prostate cancer cases, observational treatment modalities have emerged.

Observational treatment comprises Watchful Waiting and Active Surveillance. While the traditional watchful waiting applies to older men with significant comorbidities, Active Surveillance aims at monitoring carefully the patients with serial PSA assessments, repeat biopsies, and other imaging tests intended to identify early signs of progression. When such progression occurs, the patient undergoes treatment. In this case, AS offers a delayed treatment within a window of opportunity for cure without compromising long term outcomes in carefully selected patients. In this review, we aim at describing these management options and their outcomes in view of the current literature and discuss their potentials in Africa.

WORK- SHOP

Janse van Rensburg, Sue

**CANCER ADVOCACY IN SOUTH AFRICA: THE ESSENCE OF CANSA'S
WATCHDOG ROLE**

**Cancer
advocacy
workshop &
expo**
08h30–17h30
Thursday
21 November

Sue Janse van Rensburg*
Cancer Association of South Africa (CANSAs), South Africa

Correspondence Janse van Rensburg, Sue
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CANSAs's unique integrated approach is enabled by our research programme which is translated (translational research) into our health messages and further ensure the alignment of our health programmes in accordance, as well as our Advocacy focus (research in action).

Our Advocacy function, also known as our Watchdog Role is based on CANSAs's two generic health messages namely: maintain a balanced lifestyle; and avoid or limit intake of and exposure to carcinogens (cancer causing substances and chemicals)

Its main objectives are to encourage and assist South Africans in making informed choices to reduce cancer risk and to lobby and influence policy-makers on the changes needed to protect the public from known carcinogens.

The CANSAs Seal of Recognition programme, which include our Smart Choice Seal, the SunSmart Seal and our recently launched Food Supplementation Smart Seal, forms the foundation of CANSAs's bigger Advocacy function, better known as the CANSAs watchdog role. The Seal of Recognition is awarded to carefully selected products that promote a healthy lifestyle that have been shown through research to reduce the risk of cancer.

CANSAs's watchdog role plays a significant role within society and is visible through the various smart choice seals. There is sufficient evidence that the public, media, various industries as well as the lawmakers perceive our messages, seals and input, founded on independent research outcomes, of great significance in making needed informed decisions.

WORK- SHOP

Jedy-Agba, Elima

THE CANCER PROFILE IN WEST AFRICA

Elima Jedy-Agba*

Research, Nigeria, Institute of Human Virology Nigeria, Nigeria

**African Cancer
Registry
Network**

14h30–17h30

Friday

22 November
2013

Correspondence Jedy-Agba, Elima

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Background Cancer is an emerging public health problem in Sub-Saharan Africa widely attributed to an aging population, dietary and lifestyle factors. Cancer registry data from West African registries suggest a rising cancer incidence and high mortality in the region.

Methods The data presented is extracted from the contributions of West African cancer registries to the GLOBOCAN 2008 and GLOBOCAN 2012 (in press) databases. The absolute number of cases, incidence and mortality rates of the most common cancers in West Africa, in females and males are reported.

Results The total number of cases for the 5 most frequent cancers in women and their age standardised incidence rates (ASRs per 100,000) are: cancers of the breast 39,913 (37.6), cervix uteri 26,934 (26.7), liver 7657 (7.1), ovary 3885 (3.5) and colorectum 3667 (3.6) In West African men, cancers of the prostate 17,439 (16.8), liver 15221 (14.6), non-hodgkin's lymphoma 4099 (3.3), colorectum 4010 (4.1) and stomach 2799 (2.9) are most commonly seen. The total number of deaths and mortality rates (ASRs) for the most common cancers in women are; breast cancer 20645 (19.1), cervix uteri 16301 (16.1) and prostate cancer in men 14.943 (25.6).

Conclusion Breast cancer has now surpassed cancer of the cervix as the most common cancer in West Africa. The most common cancer affecting men in the region remains prostate cancer. Cancer mortality in the region remains higher than in many western countries.

WORK- SHOP

Jemal, Ahmedin

BREAST CANCER TUMOR SIZE AND STAGE IN SUB-SAHARAN AFRICA

Ahmedin Jemal*¹; Catherine Okello²; Donald Max Parkin²

¹American Cancer Society, United States; ²African Cancer Registry Network, United Kingdom

**African Cancer
Registry
Network**

14h30–17h30

Friday

22 November

2013

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Breast tumor size and stage are useful for prediction of outcomes, for informing the allocation of national or regional resources for breast cancer control (curative vs. palliative), and for monitoring progress of early detection program. However, there is little population-based information on breast cancer size or stage distribution in sub-Saharan Africa.

The aim of this study is to record and describe the size and spread (regional, distant) of female breast cancer cases by age in ten select population-based cancer registries in sub-Saharan Africa. This study also characterizes the breast tumours according to residence (rural/urban), method of diagnosis (histopathology, imaging, clinical examination only) and survival. For each cancer registry, analysis will be based on 144 invasive breast cancer cases randomly selected from those diagnosed in the most recent year or years, for which data collection is considered to be at least 95% complete. The 144 cases include half under 50 years (pre-menopausal) and half aged 50 or more.

The findings of this study will also illustrate the differences or similarities on breast cancer size, stage and other outcomes across countries/registries in sub-Saharan Africa.

WORK- SHOP

Radiation and chemotherapy

14h30–17h30

Friday

22 November

2013

Jeremic, Branislav

EVIDENCE-BASED PALLIATIVE RADIOTHERAPY: AN AFRICAN REALITY

Branislav Jeremic*

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Palliative radiotherapy (RT) represents substantial part of daily work in a busy RT clinic. This is especially so in low and middle income (LMI) countries where poor public awareness of cancer problem, poor health care infrastructure and lack of national cancer control programmes exist. Finally, in a majority of LMI countries there is a lack of adequately trained staff and a lack of modern RT equipment, which all additionally burden poor health care systems. This frequently leads to poor RT access.

In such cases, palliative RT does not only have the aim of addressing distressing symptoms in incurable patients with either locally advanced or metastatic cancers, but has also been considered an appropriate tool for achieving it fast and in a substantial proportion of such patients. Single and short fractionated RT regimens are deemed especially fruitful in these conditions. Several years ago, the International Atomic Energy Agency (IAEA) underwent collecting patterns of practice in palliative RT on African continent. Findings from that survey identified under-utility of single fraction RT in cases of single painful bone metastases. Due to a fact that besides evidence-based oncology principles and workload, other factors may have influenced the decision-making process, we underwent another survey with similar goal in order to detect changes in the intervening period.

A questionnaire was developed and sent to known RT centers in Africa, excluding South Africa. Fifteen out of sixteen contacted centers responded. Results of the survey will be presented and placed into the context of both existing evidence and previous survey done on behalf of the IAEA.

PLENARY

Pathology
09h10–10h30
Friday
22 November
2013

Junaid, T Abisogun

PATHOLOGY DIAGNOSTICS IN SUB-SAHARAN AFRICA: THE GLORIOUS PAST, CURRENT STATUS AND RECOMMENDATIONS FOR SALVAGING THE FUTURE

T Abisogun Junaid*
Faculty of Medicine, Kuwait University, Kuwait

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With European colonization of sub-Saharan Africa (SSA) came missionary doctors and physician-pathologists who set up health centres that grew into general, regional and teaching hospitals of newly established medical colleges such as Makerere, Ibadan and Khartoum. Morbid Anatomical, light microscopic and other basic laboratory techniques were usefully employed to map out disease patterns, establish research units and correct misconceptions about disease occurrence and causation. Additionally, a handful of young African physicians and technicians were recruited into Pathology.

Scholarly publications from these centres established that cancer was as common in SSA as in parts of Europe but were of different patterns and histopathological subtypes. Entities such as Burkitt's lymphoma and endemic Kaposi's sarcoma were highlighted and their possible environmental causes discussed. Technological advances that have revolutionized pathology diagnostics in the last four decades and offered Pathology a historical opportunity coincided with the post-independence period of chaos, military dictatorships, conflicts, unplanned expansions and brain drain in SSA. Consequently, few laboratory services in SSA today have expertise in, or facilities for immunohistochemistry, FISH/CISH, PCR or DNA microarrays. Adequate staffing and upgrading of existing laboratory facilities would require political commitment, rational planning, judicious use of limited resources and a re-look at the specialty itself.

Kalagbor, Ihesinachi

INVESTIGATION OF THE PRESENCE OF SOME HEAVY METALS IN
FOUR EDIBLE VEGETABLES FROM A COTTAGE FARM IN PORT
HARCOURT, RIVERS STATE, NIGERIA

Friday
22 November
2013

Ihesinachi Kalagbor*¹; Vigale Barisere²; Glory Barivule¹; Sudor Barile¹;
Comfort Bassey¹

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Objective Port Harcourt is one of the cities in Nigeria with high levels of environmental pollution. Due to the high rate and increased incidence of cancers, the presence of Cr, Mn, Ni, Co, Cu, Cd, Zn and Pb were investigated in four most commonly consumed vegetables in this part of the country. These vegetables are fluted pumpkin (*Telfairia occidentalis*), Bitter leaf (*Vernonia amygdalina*), Scent leaf (*Ocimum gratissimum*) and Water leaf (*Talinum triangulare*).

Method The vegetables were collected from the farm in triplicate by plucking, labeled and air dried before transferring to the laboratory for subsequent digestion and analysis. A mixture of concentrated trioxonitrate (V) acid, HNO₃ and tetraoxochlorate (VII) acid, HClO₄ (4:1) was used to digest the samples. The metal concentrations in these vegetables were determined using AAS.

Results The metal analysis results showed the concentrations of the metals in the order of: Zn > Mn > Ni > Cu > Pb > Cr > Co > Cd. Zinc (Zn) has the highest concentration followed by Mn, then Ni. Waterleaf has the highest concentration of the metals Zn, Mn, Ni, Co, Cr and Cd followed by scent leaf. Fluted pumpkin ranked second in the concentrations of Mn and the highest for Cu. The vegetables under study reveal high concentrations of these heavy metals which were found to be above the FAO and WHO acceptable limits.

Conclusion These high values can be attributed firstly to atmospheric pollution as the cottage farm is a few meters away from a major highway and most of these metals are constituents of fossil fuel and machinery. This therefore implies that the consumption of these vegetables will eventually lead to serious health problems in the organs and circulatory systems as Ni, Cd, Cr and Pb have been classified as carcinogens.

**POSTER
085**

Kalebi, Ahmed

**LABORATORY DIAGNOSTIC REVIEW OF CHRONIC MYELO-
PROLIFERATIVE NEOPLASMS AT A PATHOLOGY PRACTICE IN KENYA**

Ahmed Kalebi*¹; Ruchika Kohli²

¹Pathologists Lancet Kenya Limited, Kenya; ²Pathologists Lancet Kenya, Kenya

Saturday
23 November
2013

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Objective The diagnosis of chronic myeloproliferative neoplasms (CMN) including chronic myeloid leukemia (CML), essential thrombocythemia (ET), primary myelofibrosis (PMF) and polycythemia vera (PV) is dependent on laboratory confirmation which includes peripheral blood and bone marrow testing as well as molecular studies. We review the laboratory diagnoses and characteristics of cases seen in our laboratory.

Methods Data was collated from our laboratory information system and abstracted in a frequency table to obtain summary statistics.

Results 25% of the MPN cases were diagnosed on bone marrow trephine biopsy with 13% diagnosed with a bone marrow aspirate. BCR-ABL was frequently done in patients with suggestive CML on morphology to determine whether targeted therapy was indicated. Most patients with CML do have the BCR-ABL gene mutation – out of the 520 cases seen over the last three years, 74% (383) were positive for the mutation. The JAK 2 mutation is less frequently requested – out of 41 cases, 12 were positive. Information on the frequencies and characteristics of these CMN will be presented in a poster.

Conclusions PCR for BCR: ABL and JAK2 mutation analysis have greatly improved the accuracy of evaluation of CMNs, while availability of bone marrow trephines have also contributed to better diagnosis of PMF. Comprehensive assessment of all CMN is important for accurate diagnosis and to inform management.

WORK- SHOP

**Cancer
advocacy
workshop &
expo**
08h30–17h30
Thursday
21 November

Kandusi, Emmanuel

COMMUNITY OUTREACH ADVOCACY: CANCER AWARENESS IN COMMUNITIES

Emmanuel Kandusi*

Tanzania 50 Plus Campaign: Prostate Cancer Literacy, Advocacy and Support Initiatives, Tanzania

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Community Outreach Advocacy – COA is the best methodology. This methodology is the prolegomena to the achievement of all other advocacies including political, fundraising, research, support and education. The goals of COA are to reach out into the community in a manner that encourages a two-way dialog. This type of advocacy often partners with a local health organization or professional group. Sometimes there is a special minority/underserved focus to bring these groups more services and/or access. At the end of the day the communities increases their knowledge on cancer. It's an informed people who are an outcome of Community Outreach Advocacy awareness work. Such people can comprehend and tackle any other initiatives in addressing the issue at stake and so prevent and control unnecessary suffering and deaths caused by cancer!

Case work Tanzania 50 Plus Campaign – prostate cancer literacy, advocacy and support initiatives on Community Outreach Advocacy. We together will see example of how the campaign conducts Prostate health education, awareness, trainings and dissemination of right information on the disease. The outcome of the exercise is an informed community on those risk factors, warning signs, and increased knowledge on the value of testing/screening and of timely early detection. “Men should not wait for warning signs or symptoms of cancer. Men should be made aware that cancer diagnosis in the early stage is better than the late stage. In most cancers, the earlier it is discovered the better chance of cure. Literacy leads to communities understanding of prostate cancer and so result to an increase number of men who are about and over 50 years old attendance to hospitals for prostate check-ups, care, support and treatment”; Through such initiatives will enable the African Cancer Advocates Consortium – ACAC achieve its mission to “Make Cancer a Top Priority in Africa”!

WORK- SHOP

Kandusi, Emmanuel

**SUPPORT ADVOCACY: TO CANCER PATIENTS, SPOUSE, RELATIVES
AND FRIENDS**

**Cancer
advocacy
masters training**
08h30–17h30
Wednesday
20 November
2013

Emmanuel Kandusi*

Tanzania 50 Plus Campaign: Prostate Cancer Literacy, Advocacy and Support Initiatives, Tanzania

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Support advocacy is one of the most important aspects of advocacy is providing support for newly diagnosed cancer patients, survivors, families, friends and caregivers. The AORTIC Support Advocacy working group defined cancer support as connecting patients, families, and caregivers for help, hope, and inspiration throughout cancer management and needs. It is imperative that the patient's voice in expressing his or her needs is essential for Support Advocacy.

The support could be in terms of physical, emotional, family, services, information, healthy lifestyle (nutritional) and financial support. Additional best practices are to (i) avoid marginalization of the care of patients; (ii) eliminate disparity of services for undeserved patients; (iii) make deliberate multi-sectorial action plans to foster cancer care support in Africa; and (iv) facilitate local and global collaborations for successful Support Advocacy.

Case work Tanzania 50 Plus Campaign – prostate cancer literacy, advocacy and support initiatives work on Support Advocacy. We together will see how the campaign strives to serve prostate cancer survivors to enhance the quality of life and at the same time extending moral, material and counseling services to them, their friends, spouse and families. Will share stories of how we do home and hospital visitation to support victims of prostate cancer and how we are setting-up country-wide support groups for the prostate cancer survivors, friends, spouses and families. Conclude with challenges!

WORK- SHOP

Cancer registries in Africa

14h30–17h30

Thursday

21 November
2013

Kantelhardt, Eva Johanna FEMALE CANCER IN ETHIOPIA

Eva Johanna Kantelhardt*¹; Assefa Mathewos²; Abreha Aynalem²;
Tigeneh Wondemagegnehu²; Christoph Thomssen¹; Andreas Stang¹
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Objective In Africa, about 53,300 and 50,000 women die each year from cervical and breast cancer, respectively [GLOBOCAN 2008] the sum almost approaching the number of maternal deaths (148,000 in 2010) [WHO 2012]. Increasing urbanisation with changes in life style and therewith risk factor profiles makes the agenda of female cancers even more urgent [Jemal 2012; McCormack 2011]. We attempted to find out more about incidence, stage at presentation and outcome in Ethiopia within the University collaboration Addis Ababa and Halle (Saale) University, Germany.

Methods A prospective, population-based cancer registry was established in Addis Ababa city. Verbal autopsies were done for disease-specific mortality rates to find out about the magnitude of cancer in the non-urban setting. At the only oncologic referral center Addis Ababa, breast and cervical cancer cases of the last years were documented. Disease free and overall-survival was estimated.

Results Data from the Addis Ababa cancer registry 2012 shows breast cancer as number one entity followed by cervical cancer. Similarly breast and cervical cancer were both important causes of death in rural setting. Outcome of patients treated with chemo-, endocrine- and radiotherapy was considerable in this limited resource-setting.

Conclusion As compared to previous data from African cancer registries, breast cancer is more dominant than cervical cancer in Addis Ababa. Probably due to decline of infectious diseases, cancer is also important in the rural setting. There is an urgent need for awareness, primary prevention by vaccination, early detection and down staging as well as reduction of unacceptably long waiting times for treatment.

WORK- SHOP

**Cervical
cancer
prevention II**
11h00–13h00
Thursday
21 November
2013

Keita, Namory

PROJETS NATIONAUX POUR LE DÉPISTAGE DU CANCER DU COL UTÉRIN EN RÉPUBLIQUE DE GUINÉE

Namory Keita*

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Plusieurs études ont démontré qu'un dépistage basé sur l'inspection visuelle pouvait réduire l'incidence et la mortalité par cancer du col de l'utérus. Des projets expérimentaux ont ainsi été mis en œuvre dans plusieurs Pays d'Afrique, d'Amérique latine et d'Asie. En Guinée, la première étude expérimentale a été mise en place en 2000 Avec l'aide du CIRC dans le cadre d'une étude multicentrique couvrant Cinq Pays Africains et l'Inde. Les résultats satisfaisant de cette étude nous ont amenés à réaliser plusieurs études d'évaluation, dans le but de tester la faisabilité de différents modèles de services de soins de santé, tester l'efficacité de différentes méthodes de sensibilisation, estimer la participation de la population, mettre en œuvre un processus de formation basé sur la pratique. Les différentes stratégies évaluées ont été: l'intégration du dépistage du cancer du col utérin dans le système de santé existant, la mise en place dans les zones les plus éloignées de cliniques mobiles et l'association de campagne couplé de Planification Familiale et de dépistage du cancer du col de l'utérus. Pour chacune des réalisées, la sécurité, l'acceptabilité et la faisabilité d'une approche de visite unique ont été testées. La fréquence de lésions précancéreuses et de cancers détectés ainsi que les résultats des traitements administrés ont été évalués et les principales leçons apprises documentées. En Guinée, la combinaison de plusieurs stratégies de dépistage pourrait permettre une couverture plus importante de la population cible pour le dépistage du cancer du col.

**POSTER
086**

Friday
22 November
2013

Kielkowski, Danuta

CHALLENGES AND OPPORTUNITIES IN THE ESTABLISHMENT OF AN URBAN POPULATION BASED CANCER REGISTRY IN EKURHULENI DISTRICT

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Objectives To describe the challenges and opportunities of establishing a population based cancer registry in the Ekurhuleni District of Johannesburg.

Methods The piloting of population-based cancer reporting using the new legislated national cancer reporting form was initiated in Ekurhuleni district with 6 public hospitals, 21 private hospitals and 3 private oncology centres participating. Consultative meetings with provincial and district health authorities, hospital staff and administration were done to explain the requirement of reporting newly diagnosed cancers. Cancer reporting forms and collection boxes were distributed. A system of reporting from the Charlotte Maxeke Johannesburg Academic Hospital was developed to establish under reporting from the 6 participating public hospitals that all refer cancer patients to the academic hospital. A newsletter was produced and information provided on reporting of cases to all participating facilities.

Results In total only 20% of cases were reported from participating public hospitals in first year of the pilot. Opportunities identified for improving cancer reporting included: training doctors and nurses on cancer reporting during their weekly staff meetings, cancer road shows at hospitals and the use of an electronic data dump for private sector reporting. Challenges identified were lack of funding, lack of cancer surveillance staff and designated cancer vehicles.

Conclusion Adequate funding and staff are needed to ensure better cancer reporting. There is need to optimise routine health worker meetings for the promotion of cancer reporting awareness.

POSTER
087

Kielkowski, Danuta

CHILDHOOD CANCERS IN SOUTH AFRICA: ANALYSIS OF SIX YEARS OF PATHOLOGY DATA

Sunday
24 November
2013

Danuta Kielkowski*
NIOH, NHLS, South Africa

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Objectives Childhood cancers are under diagnosed in South Africa. Especially children under one year, who are born at home, and poor children living in rural areas far away from the nearest hospital. We are analysing a 6 year data to describe patters of childhood cancers and compare cancer patterns with other countries published data.

Methods All new childhood cancers (0–14 years old) reported from 2000 to 2005 in the South African Cancer Registry were analysed. In total 4082 cases were included. Data was analysed by: year, age group, population group and specific type of cancers, morphology, and incidence rates by year and average rate.

Results The most common condition was leukaemia, comprised of lymphoid and myeloid leukaemia. Precursor cell lymphoblastic leukaemia constituting 86.9% of the lymphoid leukaemia's. Myeloid leukaemia cases 90% were acute form. Leukaemia average rates over the six year period was 88.1 per 1 000 000. Lymphoma average rate was 65.0, followed by kidney cancer rate 53.5; brain with CNS rate 45.3, eye cancer rate was 31.6, followed by the connective tissue, and bone cancers. The last three cancers were female's genital organs; skin, and primary site NOS made up the rest of the ten top cancers in children.

Conclusion Patterns observed in South Africa are different than those published internationally. Reporting of childhood cancers in South Africa must be improved; more childhood oncology specialists are needed.

WORK- SHOP

Kingham, T Peter

NEOADJUVANT CHEMOTHERAPY AND BREAST CANCER SURGERY

T Peter Kingham*

Memorial Sloan-Kettering Cancer Center, United States

Breast cancer:

focus on

surgery

11h00–13h00

Saturday

23 November

2013

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Many patients with breast cancer in Africa present with large or locally advanced disease. Due to their presentation, chemotherapy is often used in the neoadjuvant setting. In this session we will review the indications for neoadjuvant chemotherapy, measuring the response to chemotherapy, how chemotherapy affects surgical options, and outcomes of patients treated with neoadjuvant chemotherapy.

There are pre-treatment diagnostic and imaging considerations such as core needle biopsy, fine needle aspiration of palpable nodes, and a punch biopsy of skin if obvious local extension or inflammatory changes. The assessment of response relies upon physical examination, mammography, and in some setting MRI. Neoadjuvant chemotherapy responses can differ by tumor subtype. After response to chemotherapy has been determine, the final decision of breast conservation therapy or mastectomy can then be made. It is often difficult to perform breast-conserving surgery because it is difficult to know if margin negative actually means there are no remaining islands of disease.

Four randomized trials that demonstrated axillary node down staging with neoadjuvant chemotherapy will be reviewed. On average, there was a 30% nodal down staging seen in patients that received neoadjuvant chemotherapy. Neoadjuvant chemotherapy offers no survival advantage or disadvantage, allows down staging of large tumors and breast conservation therapy in select patients, and pathologic response rates correlate with both disease free survival and overall survival. Randomized trials such as NSABP B-18 and B-27 demonstrated that survival was improved in patients that had a pathologic complete response to neoadjuvant chemotherapy compared to patients with residual disease.

WORK- SHOP

Kinyanjui, David Makumi

ROLE OF THE NURSE IN AFRICA IN DESIGNING STRATEGIES FOR INCREASING CANCER PUBLIC AWARENESS AND EARLY DETECTION

**Oncology
nursing**

14h30–17h30

Saturday

23 November

2013

David Makumi Kinyanjui*¹; Lawrence Ikahu Gichini²

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Background Nurses involved in cancer control in a continent facing rapid social and economic changes face unique challenges. Cancer control often is not a priority in many African countries where health care needs compete for limited resources. Economic and physical, access to specialist healthcare for cancer patients is often compounded by cultural and political barriers such as wars and conflicts. These challenges present both threats and opportunities to establishing sustained cancer control programs across the continent.

Objectives This workshop presentation will expound on the important role nurses in Africa can play in increasing cancer public awareness and early detection. The workshop will also elucidate on strategies nurses can use in implementing cancer control programs.

Methods A workshop presentation derived from desk review, practice observations and interviews with key frontline nurses involved in cancer control in Africa.

Conclusions Governments in Africa seeking to address the cancer problem must involve all levels of healthcare professionals. Nurses are a natural choice to lead the cancer control agenda since they are the first point of contact with the community and understand more than anybody else how the population interacts with the social, economic and political environment. Nurses can design and deliver innovative culturally acceptable low cost cancer control programs by identifying and closing the gaps on missed opportunities. Missed opportunities include encounters with consumers of health care at all levels from mother and child clinics to inpatient units in district and county hospitals.

**POSTER
088**

Kohnke, Jenna

**USING THE MORPHINE FRAMEWORK TO IMPROVE ACCESS TO
ESSENTIAL PAIN MEDICINES**

Jenna Kohnke*

American Cancer Society, United States

Friday

22 November

2013

Correspondence Kohnke, Jenna

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Objective Thirty-nine countries in Africa treat less than 5% of deaths in moderate or severe pain despite the existence of inexpensive, plentiful, safe, and effective medicines that the World Health Organization considers essential. The American Cancer Society's Treat the Pain program has developed an eight-step MORPHINE framework to describe a process for supporting national governments to improve access to essential pain medicines.

Methods This session will present the MORPHINE framework and describe its use in Uganda, Nigeria, and Kenya. The framework describes the stepwise process for engaging governments, identifying barriers to access, and formulating solutions.

Results This framework is useful for structuring interventions and mobilizing resources to improve access to essential pain medicines. In both Nigeria and Uganda, national supply was restarted within one year and next steps were identified for scaling-up availability. Projects in these three countries have resulted in an additional 2.8 million days of treatment over the last two years.

Conclusions Although the barriers to access in each country are unique, the MORPHINE framework can be adapted for use in any African country and provides a straightforward way for structuring interventions to improve access to essential pain medicines.

POSTER
090

Kolawole, Israel

HERBAL MEDICINE USE BY CANCER PATIENTS IN A TERTIARY HEALTH INSTITUTION IN NIGERIA

Israel Kolawole*; Zakari Sulieman; Kayode Olafimihan; Kazeem Adegboye
University of Ilorin Teaching Hospital, Nigeria

Friday
22 November
2013

Correspondence Kolawole, Israel
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Objective The prevalence of CAM use in cancer patients in Nigeria is said to be one of the highest in the world. Herbal medicines are among the most common CAM used among cancer patients. There is limited data on the use of herbal medicines by cancer patients in Nigeria. The aim of this study was to determine the prevalence of use, and socio-demographic characteristics of cancer patients using herbal medicines at the University of Ilorin Teaching Hospital, Ilorin.

Methodology The case notes of all cancer patients seen by the palliative care unit of UITH between May 2009 and April 2013 were retrospectively reviewed. Data were collected on the prevalence of use of herbs and the socio-demographic characteristics of the patients and analyzed.

Results A total of 311 medical records were reviewed. 25.4% of all the patients were found to have used herbal extracts before presentation. There was a slightly higher usage of herbs in males (29%) compared with females (25%). The use of herbs cut across religious, ethnic and social backgrounds.

Conclusion Herbal medicine use is common among cancer patients in our hospital. To ensure patient safety, Physicians should routinely ask their cancer patients about use of herbs to avoid unnecessary drug interactions.

WORK- SHOP

Free
communication
of abstracts III
11h00–13h00
Saturday
23 November
2013

Kolawole, Israel

PAIN CONTROL IN CANCER PATIENTS: AN AUDIT OF ANALGESIC-PRESCRIBING BY GENERAL SURGEONS IN A TERTIARY HEALTH INSTITUTION IN NIGERIA

Israel Kolawole*; Zakari Suleiman; Kayode Olafimihan; Kazeem Adegboye
University of Ilorin Teaching Hospital, Nigeria

Correspondence Kolawole, Israel
Email: kolawole.israel@gmail.com

Objective General surgeons have a central role in the management of pain in cancer patients in Africa due to a dearth of palliative care experts/pain specialists. Few studies, however, have investigated the analgesic-prescribing practices for cancer pain treatment by general surgeons in Africa. The objective of this study was to audit the analgesic-prescribing practices for pain treatment in cancer patients by general surgeons in our hospital from May 2009 to April 2013.

Materials and Methods We retrospectively reviewed the medical records of all cancer patients within the period under review. Data extracted included, prevalence and severity of pain at the time of first PC contact, types, frequency, combination and dosage of analgesics prescribed by attending surgeons and appropriateness of choice of analgesics.

Results A total of 311 medical records were reviewed. Pain was present in 69.8% of them at the time of first Palliative Care contact, out of which 64.5% were already being managed with analgesics prescribed by the general surgeons. Opioid analgesics prescribed included morphine in 40.7%, Tramadol in 27.9%, and DF118 in 15.7%. Other forms of analgesics prescribed included Acetaminophen (32.1%) and NSADs (24.3%). There was no documentation of any pain assessment before analgesic prescription and none of the patients received analgesic adjuvants. Overall, 82.1% still had moderate to severe pain despite being on analgesic medications as prescribed by the surgeons.

Conclusion There was recognition and definite efforts on the part of our general surgeons to treat pain in cancer patients. Opioids were used when available but the age old barrier of deficiency in knowledge on the use of opioids persists. The findings point to a need for early involvement of Palliative Care providers in cancer pain management and for medical schools and residency programs to do better in preparing future surgeons to manage pain with improved knowledge and understanding.

Friday
22 November
2013

Israel Kolawole*; Zakari Sulieman; Kayode Olafimihan; Kazeem Adegboye
University of Ilorin Teaching Hospital, Nigeria

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Objective The need for palliative care for cancer patients is significant in Africa due to late presentation which makes the disease far advanced at presentation, when cure is no longer feasible or curative treatments such as surgery and radiotherapy may not be available or affordable. The aim of this study was to present our experience of providing palliative care service to cancer patients over a period of four years (May 2009–April 2013).

Methodology: A retrospective review of case notes of all cancer patients seen by the palliative care unit of the University of Ilorin Teaching hospital, Nigeria between May 2009 and April 2013 was undertaken. Data collected included demographic characteristics, sources of referral, reason for referral, primary diagnosis, patients' symptoms and interventions provided.

Results A total of 311 patients with various forms of malignancies at various stages of the disease were seen within the period under review. There were 72.3% females and 27.7% males. The age ranged between 13 and 95years, with a mean of 50.76 ± 15.9 S.D years. The commonest form of malignancy was cancer of the breast (35.0%), followed by ovarian cancer (8.7%). Pain was the commonest symptom (69.8%) at first PC contact, followed by fatigue (45.3%). Majority of the patients (65.9%) presented late to hospital. Palliative care interventions provided included pain and symptom control, psychotherapy, counseling, spiritual support, home care and Bereavement support. The overall mortality for the period of the study was 76.2%.

Conclusion The palliative care unit of the University of Ilorin Teaching Hospital has made significant impact on the lives of patients and their families suffering from various forms of malignancies. Though challenges are many, the unit has great potentials for growth.

Thursday
21 November
2013

Konaté, Ibrahima

**ETUDE DESCRIPTIVE ET PROBLEMATIQUE DE PRISE EN CHARGE DES
CANCERS DU TUBE DIGESTIF: A PROPOS DE 205 CAS COLLIGES AU
SERVICE DE CHIRURGIE GENERALE DU CHU LE DANTEC (DAKAR)**

Ibrahima Konaté*; Alpha Oumar Touré; Mamadou Cissé;
Mohamed Lamine Diao; Jacques Noël Tendeng
University Cheikh Anta Diop, Senegal

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Introduction L'Afrique Sub-saharienne a longtemps été considérée comme une zone à faible incidence de cancer digestif. Ce travail, mené dans le Service Chirurgie Générale du CHU Le Dantec. L'objectif était de déterminer la fréquence, le profil des cancers du tube digestif et d'identifier les problèmes de leur prise en charge.

Patients et méthodes Il s'agissait d'une étude rétrospective menée du 1er Janvier 2004 au 31 Décembre 2009 portant sur 205 cas de cancer du tube digestif confirmé par histologique. L'âge moyen des patients était de 51,8 ans. Le sex-ratio était de 1,6 . nous avons étudié, la fréquence, le délai de consultation, les examens diagnostiques, le délai de prise en charge, le type de traitement.

Résultats Nous avons recensé 205 cas de cancers du tube digestif. L'œsophage représentait 36,5%, estomac 26,3%, côlon 19,3 %, rectum 10,7 %. Le délai du diagnostic était de 15,3 mois en moyenne (0,3 et 120 mois). Cent quarante-six patients (71,2%) ont bénéficié d'un examen endoscopique. L'échographie abdominale a été pratiquée chez 106 patients (51,7%). Une tomodensitométrie a été réalisée dans 64 cas (31,2%). Les types histologiques étaient adénocarcinome 59,7%, carcinome épidermoïde 37,5%, léiomyosarcome dans 1,4% lymphome 1,4%. Cent soixante-dix-huit patients (86,8%) ont été opérés. Une chirurgie à visée curative a été pratiquée chez 27,4% des patients. Elle a été palliative dans 67,4% des cas. Dix-neuf patients (9,7%) sont décédés avant tout traitement. Le délai moyen de prise en charge chirurgicale était de 14,3 mois (extrêmes de 24 heures et 18 mois). La chimiothérapie a été faite chez 37 patients. La radiothérapie a été réalisée chez 29 patients. Huit prothèses œsophagiennes ont été mises en place. La durée moyenne de survie était de 9,4 mois avec des extrêmes de 6 jours et 3 ans.

Conclusion La prévalence des cancers du tube digestif est en hausse au Sénégal. La prise en charge sera améliorée grâce à une approche pluridisciplinaire.

WORK- SHOP

Free
communication
of abstracts I
11h00–13h00
Friday
22 November
2013

Kotze, Danie

HIV-RELATED BURKITT LYMPHOMA: TREATMENT OUTCOME IN A SOUTH AFRICAN PUBLIC HOSPITAL

Danie Kotze*¹; Matthew Seftel²; Gerhard Sissolak¹

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Introduction Burkitt Lymphoma is regarded as the most frequently encountered sub-type of HIV associated lymphoma in South Africa. Recent trial data indicate favourable therapeutic outcomes regardless of HIV status. Outcomes of HIV positive patients with this aggressive tumour in a resource constrained African health care setting are not well defined.

Methods We performed a 6-year retrospective cohort study of 23 patients with Burkitt lymphoma, leukaemia or Burkitt-like lymphoma who received treatment at Tygerberg Hospital, an academic medical centre in Cape Town, South Africa. The Kaplan Meier method was used for survival assessment. Prognostic factors were evaluated by Gehan's Wilcoxon test.

Results Most patients (96%) were HIV-positive and predominantly (82%) treated with the LMB 86 regimen, while 18% received either the hyper-CVAD or Stanford programmes. The median CD4 lymphocyte count was 174 cells/ μ L (range 21 – 535 cells/ μ L). Ninety-six percent of patients presented with advanced stages of disease (Ann Arbor stage III or IV). Two year overall survival was 47,4% (95% confidence interval (CI) = 27,1 – 83,1%) and 2 year event-free survival was 27,7% (95% CI = 0,12–0,66). The most frequent causes of death were infection (22%) and disease progression (22%). Furthermore, the predominant reason (40%) for loss to follow-up was patients not arriving for chemotherapy.

Conclusions Despite limited resources, our outcomes are comparable to international studies using similar chemotherapeutic regimens in HIV positive BL patients of comparable age and disease stage. Monitoring and prompt management of treatment toxicity and ensuring regular follow-up visits are essential components for improving outcomes in our patients.

WORK- SHOP

HPV Cervical cancer network in Francophone Africa

14h30–17h30

Thursday
21 November

Koumakpayi, Ismaël Hervé

CERVICAL CANCER IN GABON, CENTRAL AFRICA: WHICH STRATEGIES FOR A BETTER MEDICAL CARE?

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The cervical cancer is the third worldwide cause for which 86% of the cases recorded are located in developing countries. The most important type of cancer in women living in sub-Saharan Africa is cervical cancer. The data assess that there are more than 500 000 new cases of this form of cancer diagnosed per year in the world from which approximately 270 000 women die.

Today only few studies have been made on the female populations of Central Africa in comparison with other regions of the African continent. These studies are hardly comparable considering that very often the selected female populations as well as the cytological and molecular methods of detection of HPV are different, rendering difficult the comparison of the repartition of HPV genotypes. A major issue in Central Africa is the ability to know and precisely establish the diversity and the prevalence of HPV in order to determine the impact of a massive vaccination campaign in populations at risk. In fact, the introduction of vaccination causes debate, especially in Africa, mainly because it is directed against a limited number of genotypes known to circulate in developing countries.

In this presentation, we will present the creation of a new platform of HPV molecular diagnostic of cervical smear samples and its application in future screening campaigns in Gabon. Indeed, this structure will be unique in Central Africa to allow an early and regular diagnostic in order to stop the lethal progress of this cancer due to mainly to a delayed diagnostic.

WORK- SHOP

Korir, Anne

CERVICAL CANCER INCIDENCE AND SURVIVAL

Anne Korir^{*1}; Henry Wabinga²; Eric Chokunonga³; Charles Dzamalala⁴; Louise Ekobena-Ekobo⁵; Max Parkin^{*5}

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Malawi; ⁵African Cancer Registry Network, United Kingdom

African Cancer Registry Network

14h30–17h30

Friday

22 November
2013

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Introduction According to the latest Globocan estimates (for 2012) cancers of the cervix and breast are about equally common in sub-Saharan Africa – together, they comprise half of all cancers in women. There are, however, quite large variations in incidence of cervix cancer by country.

Objective To determine the incidence and survival of cervical cancer in sub-Saharan Africa

Method For incidence, we use national estimates based on recent data derived from cancer registry members of the African Cancer Registry Network (AFCRN), and submitted to a central database. Four of them provided data on follow-up of cervix cancer cases registered in 2004–2008 for the estimation of survival (the registries of Nairobi-Kenya, Kampala-Uganda, Harare-Zimbabwe and Blantyre-Malawi). Follow-up was undertaken by active methods, and, for those not known to have died it was necessary to contact the patients or their families through telephone, home visits, postal address or emails.

Results The highest incidence rates were observed in Zimbabwe (Harare, 2003–6, ASR 86.5 per 10⁵), Malawi (Blantyre 2003–7, ASR: 76.1 per 10⁵) and Mozambique (estimated as 65.0 in 2012, based on data from the cancer registry of Beira). The lowest were in Mauritius (estimated as 15.0 per 10⁵), Namibia (14.7) and Niger (8.6). The results of the survival analysis are incomplete. Earlier studies indicate that five year relative survival for cases diagnosed during the period 1993–1997 were: Harare (Black pop) 40%, Gambia 22%, Kampala 21% (Sankaranarayanan, IARC 2011)

Conclusion Information on survival has been recognized as an important component in monitoring cancer control activities (WHO/IARC).

WORK- SHOP

AIDS-related malignancies

11h00–13h00

Sunday

24 November

2013

Krown, Susan

HIV-ASSOCIATED KAPOSI'S SARCOMA IN AFRICA: CHALLENGES AND OPPORTUNITIES

Susan Krown*

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Kaposi's sarcoma (KS) is the most common AIDS-defining malignancy in sub-Saharan Africa (SSA). Even with increased use of effective antiretroviral therapy (ART), the incidence of AIDS/KS remains much higher than in the HIV-uninfected population. KS incidence in HIV-infected individuals in SSA is also much higher than in HIV-infected individuals in other parts of the world as a consequence of much higher rates of co-infection with KSHV (HHV-8), the etiologic agent of KS.

The optimal management for AIDS/KS in SSA has not been defined, but controlled clinical trials are in progress to identify the most effective and well-tolerated treatments and the characteristics of patients most likely to respond to different therapeutic strategies. The AIDS Malignancy Consortium and AIDS Clinical Trials Group are collaborating on prospective, randomized trials to identify the best treatment approaches, which include ART and cytotoxic chemotherapy, to limited-stage and advanced-stage AIDS/KS in resource-limited settings. A major challenge is the tendency for KS to be diagnosed at an advanced stage, and efforts are needed to increase awareness of the early signs of KS so that treatment can be instituted earlier in the course of the disease. Safe and effective administration of therapy for AIDS/KS also requires the development of physical and human infrastructure (trained oncologists, chemotherapy nurses, supportive care during administration of cytotoxic agents) and close collaborative interactions between oncology professionals and those managing HIV care and its non-neoplastic complications. Potential opportunities also exist for identifying persons at high risk for KS development and developing targeted prophylactic strategies for such individuals.

WORK- SHOP

Colorectal cancer

11h00–13h00

Sunday

24 November

2013

Laiyemo, Adeyinka

COLORECTAL CANCER DISPARITIES AND BARRIERS TO SCREENING

Adeyinka Laiyemo*

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Across the globe, marked differences in health of the population exists with poorer health conditions of poor persons as compared to the affluent, rural as compared to urban dwellers, blacks as compared to whites, minorities as compared to ethnic majorities, and low literacy as compared to well-educated individuals. These disparities are particularly glaring when potentially preventable diseases are examined.

Colorectal cancer is a heterogeneous disease with a long preclinical phase which provides a unique opportunity for screening and early detection. While many developed countries of the world have programmatic colorectal cancer screening endeavors or healthcare systems that can facilitate early detection and treatment of colorectal cancers, there is a general lack of colorectal cancer screening and poor access to standard treatment for this deadly but largely preventable disease in most African countries. The healthcare system in most African countries operates mainly as a reactive “cash and carry” enterprise that addresses the health needs of symptomatic citizens. There is a need to improve communal education and awareness about cancers in general and colorectal cancer in particular in Africa. Private-Public-Partnership investments would be essential to address known barriers to establishing durable colorectal cancer screening programs in Africa.

Saturday
23 November
2013

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Shelly McDonald-Pinkett¹; Hassan Ashktorab¹

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Objective Blacks born in the United States of America (old Africans in diaspora) experience the highest burden of colorectal cancer (CRC) whereas the burden of CRC is low in Africa. We evaluated whether the risk of CRC increases among African immigrants to the United States (new Africans in diaspora) within the same generation.

Methods We reviewed the colonoscopy reports of patients who underwent colonoscopy at Howard University Hospital in Washington DC, USA from January 2009 to September 2010 and identified 709 self-identified black patients who indicated their places of birth. We used logistic regression models to compare the prevalence of colorectal neoplasia among those who were African immigrants versus those born in the United States (African Americans) and calculated odds ratios (OR) and 95% confidence intervals (CI). Our full models included age, sex, use of non-steroidal anti-inflammatory drugs and body mass index.

Results There were 124 (17.5%) African immigrants (mean age=60.1 years; 64.5% female) and 585 (82.5%) African Americans (mean age=60.3 years; 60.5% female). There was no difference in the prevalence of polyps (28.2% versus 25.8%, OR=1.18; 95%CI: 0.76–1.82) or any adenoma (14.5% versus 11.8%; adjusted OR=1.29; 95%CI: 0.73–2.27) among African immigrants when compared to African Americans. However, African immigrants had higher prevalence of advanced adenoma (7.3% versus 3.1%; adjusted OR=2.57; 95%CI: 1.11–5.90).

Conclusion African immigrants have similar risk of colorectal neoplasia as African Americans, suggesting an environmental etiology for the increased CRC burden among people of African descent in the United States.

Sunday
24 November
2013

Lizanne Langehoven*¹; P Barnardt²; JS Jacobson²

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Objectives Two million people in South Africa living with HIV infection in 2012 were receiving anti-retroviral therapy (ART). With extended life expectancy (and risk for aging-related diseases) in a cohort previously at risk of early mortality, little is known about the phenotype of breast cancer in HIV-infected women, or about their tolerance of standard cytotoxic regimens employed in the management of this common malignancy.

Methods Women seen at the Combined Breast Cancer Clinic of Tygerberg Hospital, Cape Town, South Africa, between Jan 2010 and Dec 2011, with a newly diagnosed first primary breast cancer were grouped by HIV status (positive, negative, or untested). The groups were compared with respect to clinical and demographic characteristics. Among the HIV-positive patients, chemotherapy regimens, toxicities, completion rates, and changes in CD4 cell count were described. In order to evaluate treatment outcomes of systemic chemotherapy, HIV-positive patients were matched for age and race with two HIV-negative control cases.

Results 587 met the inclusion criteria; 31 patients were HIV-positive, 420 HIV-negative, 135 untested for HIV. Women with HIV were younger at diagnosis (median age 42) than HIV-negative women (median age 54). More than 85% of all patients who initiated systemic chemotherapy, regardless of HIV status, completed it without serious toxicity. 11 of the HIV-positive patients were ineligible for chemotherapy. The median CD4 cell count/ μ L of HIV-positive patients receiving chemotherapy was 477 (range 234–807), at diagnosis and the nadir 333 (range 62–713), a 30% decrease during treatment.

Conclusion HIV-infected women were younger at breast cancer diagnosis than HIV-negative women but otherwise similar in phenotype and, among those who were eligible, completion of chemotherapy. Longer-term follow-up is needed to evaluate the effects of HIV, ART and chemotherapy on the survival and quality of life of breast cancer patients.

Lara Santos, Lucio

BREAST CANCER IN ANGOLA: A PRELIMINARY STUDY

Lygia Vieira Lopes*¹; Lucio Lara Santos²; Antonio Tavares Frederico³;
Fernando Miguel⁴

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⁴Centro Nacional de Oncologia, Angola

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Introduction Angola's population is estimated at 20.9 million people, life expectancy at birth is 55 years and about 52% are women. Breast cancer is the second most common malignancy in females but does not know the profile of this disease.

Objectives Clinical and pathological characterization of breast cancer in Angola.

Material and methods The National Oncology Centre, Luanda, Angola admitted and treated, from 2007 to 2012, 1190 women with breast cancer. A retrospective study of the clinical and pathological characteristics of 225 cancers registered in 2009, the year with the highest number of cases, was performed.

Results The median age was 31.5 years (25–89 years), 197 cases (87.5%) were in stage III and IV. The invasive ductal carcinoma was predominant (82%), 15% were low-grade neoplasms. Modified radical mastectomy (MRM) was performed in 67.1% of cases. Chemotherapy (CT) was performed in 104 neoadjuvant patients (46.2%), adjuvant or palliative chemotherapy was indicated for the other. Less than 10% of the patients had radiotherapy.

Conclusions Breast cancer is common in young women who have not reached the age agreed to screening and are diagnosed at an advanced stage which anticipates poor prognosis. Angola needs a program for early diagnosis, clinical examination and ultrasound may be useful in this context. The characterization of molecular breast cancer subtypes is urgent in order to define the best systemic treatment approach.

Lara Santos, Lucio

GLYCOSYLATION-RELATED CHANGES IN PRE-MALIGNANT LESIONS AND MALIGNANT BLADDER CARCINOMAS ASSOCIATED WITH SCHISTOSOMA HAEMATOBIIUM INFECTION

Lucio Lara Santos*¹; Julio Santos²; Elisabete Fernandes³; Ana Tavares⁴; José Alexandre Ferreira³; Carlos Lopes³

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Introduction Chronic infection with *Schistosoma haematobium*, an endemic parasite in Angola and other parts of Africa and Asia, is mainly associated with squamous cell carcinoma of the bladder. As there are no biomarkers to determine the course of infection, the tumors are diagnosed at a late stage, which is associated with decreased overall survival. Malignant transformations are accompanied by changes in glycosylation that are used in non-invasive detection of cancer. Therefore, this work aims to characterize bladder tumors of *Schistosoma haematobium*-infected patients in relation to the expression of cancer-associated glycans.

Methods 17 patients diagnosed with poorly differentiated urothelial carcinoma, urothelial carcinoma with areas of squamous differentiation, squamous cell carcinomas and squamous metaplasia were enrolled in this study. All patients had *Schistosoma* infection detected by urine analysis and cystoscopy. The tissues were analyzed by immunohistochemistry for Ki-67 (proliferation), aggressiveness (p53) and the main cancer-associated glycans (sTn, sLea, sLex).

Results All cases were p53 positive. The majority presented high proliferative indexes (ki-67 overexpression; 12/17). The sTn, sLea, and sLex antigens commonly observed in urothelial carcinomas in western populations, were detected for the first time in tumors of *Schistosoma* infected patients.

Conclusions These preliminary results show that bladder tumors associated with *Schistosoma* infection express cancer-associated glycans commonly associated to bladder tumors of chemical etiology, suggesting common pathways. Further studies are needed to identify glycans that may be used for non-invasive discrimination of oncologic disease in populations infected with the parasite. This is of major importance given the lack of health infrastructures able to provide accurate diagnostics.

Lara Santos, Lucio

PATIENT-DERIVED INVASIVE BLADDER CANCER XENOGRAPTS IN NUDE MICE

Friday
22 November
2013

Lucio Lara Santos*¹; Carina Bernardo¹; Gartner Fatima²; Amaro Teresina³; Ceu Costa⁴; Paula Lopes¹; Vitor Moreira Silva¹; Francisco Amado⁵

¹Portuguese Institute of Oncology, Porto, Portugal; ²Institute of Pathology and Molecular Immunology of the University of Porto, Portugal; ³Department of Pathology, Hospital Pedro Hispano, Portugal; ⁴Health Faculty, Fernando Pessoa University, Portugal; ⁵School of Health Sciences, University of Aveiro, Portugal

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Introduction Patients with invasive bladder cancer (IBC) have poor prognosis and significant variations in progression and response to treatment are seen between tumors with identical features, reflecting the heterogeneity of the constituent tumor cells. In order to improve survival and reduce toxicity associated with the standard therapy, it is essential to develop effective drug testing models to optimize therapy and identify new predictive markers.

Objectives The aim of this study was to establish a patient-derived xenograft model of IBC in nude mice, characterize it and access its feasibility for drug testing.

Material and methods Small fragments of resected IBC were implanted subcutaneously into nude mice, propagated and treated with chemotherapy. Tumor morphology and immunohistochemical features of primary tumor and xenografts were compared to evaluate the maintenance of tumor identity after 2 sequential passages.

Results Tumor take rate was low when first implanted in mice (1/9) but increased in sequential passages (2/3 and 13/13), providing a sufficient number of mice bearing tumors suitable for drug testing. Histologic and molecular analysis of primary tumor and xenografts showed high similarity regarding cellular type, grade of atypia and expression of molecular markers (p53, p63, Ki-67, ck-20). We also evaluated the tumor growth curve after the administration of cisplatin, gemcitabine and sirolimus. Despite the small number of mice per treatment group did not allow us to obtain conclusive data about tumor sensitivity and resistance to the drugs, it demonstrated that it is a feasible task.

Conclusions This model reflects the morphology and molecular characteristics of the primary tumor and may provide a useful tool for assessment of chemosensitivity of patient's tumor to clinically available regimens and for testing new anticancer agents in vivo.

Saturday
23 November
2013

Rita Larsen-Reindorf*; Osei Owusu-Afriyie; Isaac Boakye;
Alexander Oti Acheampong; Baffour Awuah
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Objective In Ghana, information on the prevalence and pattern of Head and Neck Cancers (HNCA) is scarce. Coupled with the fact that management of HNCA patients requires the involvement of different specialists and support services, a multidisciplinary team was established at the Komfo Anokye Teaching hospital (KATH) in 2004. This study aims to describe the pattern of HNCA among patients seen at the multidisciplinary head and neck cancer clinic of KATH from 2004 to 2009.

Methods This is a retrospective review of all consecutive patient records seen at the multidisciplinary clinic from 2004 to 2009. Data was analysed using Stata/SE 11.1 statistical software.

Results The review included 252 patients with histologically confirmed diagnosis. There were 149 males and 103 females giving a male to female ratio of 1.45:1. The age range was 2–95 years with a mean of 48.1 years and a standard deviation of 19.8. The peak age range was 50–59 years. The commonest type of HNCA in this review are cancers of the Oral cavity (29.4%), followed by accessory sinuses (13.9%) and larynx (13.5%). Nasopharyngeal cancer affected young people, with 38% of affected patients being less than twenty years of age. The commonest histopathological type was squamous cell carcinoma (49.6%). Most of the patients presented at an advanced stage with 47.6% at stage 1V.

Conclusion Prevalence of HNCA in Komfo Anokye Teaching Hospital is high. The commonest head and neck cancer is oral cancer. Majority of the patients were presenting with advanced disease.

Keywords Head and neck cancer, oral cavity, oral squamous cell carcinoma

Lawan, Aliyu

**BILATERAL PRIMARY BREAST DIFFUSE LARGE B CELL LYMPHOMA
IN A PREGNANT WOMAN WITH HIV/AIDS**

Sunday
24 November
2013

Aliyu Lawan*; Gabriel Ogun
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Objective To report a case of bilateral primary breast diffuse large B cell lymphoma in a 26 weeks pregnant HIV positive woman.

Methods The clinical and autopsy examination findings with specific immunohistochemistry findings of the breast biopsies to confirm the diagnosis were reviewed.

Results The patient was a 24 year old primigravida who presented at 26 weeks gestational age with a 6 weeks history of painful bilateral breast swelling with associated widespread skin exfoliation and hypopigmented rashes. She was diagnosed HIV positive 3 weeks prior to her demise at a peripheral clinic where she managed for mastitis. Her CD4+ cell count was 151cells/mm³. She could not be commenced on HAART immediately due to azotemia and severe anaemia. She has oropharyngeal candidiasis with genital warts.

The main autopsy findings were bilateral diffusely enlarged breasts which were firm to hard in consistency. Histology of both breast biopsies show sheets of non cohesive large cells with round to oval vesicular nuclei and scanty amphophilic cytoplasm. These cells were CD 45 and CD 20 positive and negative for CD 3, CD 5, CD 10, EMA and AE1/AE3. A diagnosis of diffuse large B cell lymphoma of the breast was made.

Conclusion Bilateral primary breast diffuse large B cell lymphoma are uncommon and are not widely reported during pregnancy coexisting with HIV/AIDS.

WORK- SHOP

Lawan, Aliyu

**HISTOPATHOLOGICAL PATTERN OF LIVER BIOPSIES IN THE
UNIVERSITY COLLEGE HOSPITAL, IBADAN, NIGERIA (2000–2010)**

**Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013**

Aliyu Lawan*; John Ogunbiyi
University College Hospital, Nigeria

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Objective To study the histopathological pattern of liver diseases seen at surgical biopsy in our department with a view to estimate changes in trends.

Materials and method The slides and paraffin embedded blocks of 201 Liver biopsies entered in the surgical daybook of the Department of Pathology, UCH, between 2000 and 2010 were reviewed. The diagnoses were reviewed where necessary and cases subsequently classified according to pathological concept of disease present.

Results Neoplasms constituted 55.7% of the cases while inflammatory lesions accounted for 31.8%. Hepatocellular carcinoma accounted for 67.9% of neoplasms (76 cases) or 37.8% overall. Eleven of the HCCs (14.5%) had background cirrhosis with 2 showing features suggestive of Hepatitis B aetiology and there was a male to female ratio of 2.3:1. Metastatic tumours accounted for 11.4% of cases and carcinomas were the commonest secondary tumours to the liver, most of which were from unknown primaries followed by those of gastrointestinal tract origin. Cirrhosis and chronic hepatitis were the most common inflammatory conditions.

Conclusion Hepatocellular carcinoma, cirrhosis, metastatic tumours and chronic hepatitis are the most common liver diseases seen at surgical biopsy in Ibadan. Most cases of HCC were without background cirrhosis and special stains were not helpful in resolving these. This unexpected increased proportion of HCC without cirrhosis may be a result of increased usage of non-cutting liver biopsy needles (with their propensity to dislodge rather than bite through nodules), and the absence of techniques (elastography) that could demonstrate cirrhosis in some of these cases. Secondary tumours appear rather too common suggesting inadequacy in clinical diagnosis of some primary tumours.

Leng, Mhoira

WHO NEEDS PALLIATIVE CARE? A CATEGORIZATION SYSTEM TO SUPPORT IDENTIFICATION AND REFERRAL

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Sunday

24 November

2013

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Objectives Identifying patients in need of palliative care (PC) is crucial to offering quality holistic care and needs to be part of a health systems strengthening approach. Thus many PC is part of routine clinical practice by colleagues in oncology, radiotherapy, internal medicine, surgery, family medicine, paediatrics, anaesthetics and gynaecology.

Methods Makerere Palliative Care Unit (MPCU) offers an integrated PC model and referral pathway for specialist care. It has developed a link nurse programme with 27 trained and mentored colleagues across 11 clinical areas in Mulago Hospital. All patients being referred to the MPCU have been assessed and data recorded using a novel 4 stage categorization:

1. Generalist needs that can be met at ward level by all health and social care workers (needs curriculum integration)
2. Generalist needs but health care workers need some additional training e.g. link nurses
3. Specialist or complex needs requiring referral and input from one member of the specialist PC team
4. Specialist or complex needs requiring referral and input from more than one member of the specialist PC team.

Results The complexity of patients referred to the MPCU has increased. Link nurses have been identifying and managing 80% of PC patients with their ward teams. The categorisation system has demonstrated improved referral pathways.

Conclusions Further research is underway to review the quality referrals and PC outcomes for patients.

Sunday
24 November
2013

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Retinoblastoma remains to be one of the most common intraocular malignant tumors among children. While survival rates are high (over 90%) in developed countries, little is known about treatment outcomes of this condition in Africa, especially Sub-Saharan Africa. Before 2007, chemotherapy was not part of the routine regimen in the treatment of RB in Tanzania except for palliative basis in advanced recurrent disease.

This study aimed at looking at the socio-demographics, clinical presentation, treatment modalities given and evaluating the outcome of treatment and survival of children with retinoblastoma after introduction of chemotherapy protocols at the Ocean Road Cancer Institute.

It was a retrospective study in which hospital data and case notes of all children with a diagnosis of retinoblastoma from Jan 2008 to Dec 2010 were analyzed. A total of 143 retinoblastoma cases were identified between 2008 and 2010 and 133 cases were available for final analysis. A slight majority of the patients were female with male to female ratio of 1:1.2. The mean age at presentation was 34 months and about 91% of the children were below the age of 5 years. It was found that 102 (76.7%) patients presented with extra ocular disease. The overall 3-year survival of the patients was 26%.

Chemotherapy courses completeness and stage of the disease were found to have significant relationship with overall survival ($p < 0.001$). Emphasis should be on early diagnosis by informing the general public and health care providers especially at the primary health facilities.

Lines, Jennifer

**SPLENIC ANGIOSARCOMA WITH BONE MARROW METASTASES:
A CASE REPORT AND LITERATURE REVIEW**

Jennifer Lines*¹; Brendon Price*¹; Dorothy Lewis¹; Nicole Holland¹;
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South Africa

Saturday
23 November
2013

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Objective A case study of a patient diagnosed with a primary splenic angiosarcoma is described, highlighting its propensity for metastasis to bone marrow. A literature review focusing on presentation, diagnosis, behaviour and treatment was undertaken and findings reported herein.

Methods A 35 year old gentleman underwent a splenectomy following injuries sustained in a motor vehicle accident. Three months later he presented with hepatomegaly, anaemia, jaundice, ascites and multiple bony lesions. A bone marrow aspirate and trephine with flow cytometry was performed. The trephine revealed effacement of normal marrow architecture by an anastomosing vascular lesion which was confirmed as metastatic angiosarcoma by immunohistochemistry. Review of the initial splenectomy specimen confirmed it as the primary site.

Results A literature search was performed using various online search engines including PubMed and Ovid Online. Eleven case reports of angiosarcoma with bone marrow involvement were found, six of which were metastatic tumours from primary splenic angiosarcomas. Diagnosis is challenging owing to its heterogeneous histological appearances and the fact that no standard imaging features exist for early disease detection. Survival rates can be significantly improved by early splenectomy. Data suggest that alternative chemotherapy combinations may be more effective than those used for other angiosarcomas.

Conclusion This case report documents a young age of presentation, aggressive tumour behavior and highlights diagnostic challenges. The literature review confirms splenic angiosarcoma as a rare entity with a propensity for bone marrow spread. Additionally, it provides important guidance regarding management and treatment modalities with a view to improving survival rates.

WORK- SHOP

Lorenzoni, Cesaltina

CANCER IN THE CITY OF MAPUTO:1991–2010

Cesaltina Lorenzoni*

Ministry of Health, Mozambique

**Free
communication
of abstracts IV**
14h30–17h30
Saturday
23 November
2013

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Objective Describe the occurrence of cancers diagnosed between 1991–2008 and 2009–2010. Cancer data are scarce but is a priority in Mozambique.

Methods All cancers cases registered in the HCM Department of Pathology from January 1, 1991 to December 31, 2010. Demographic data were collected. Date and method of diagnosis, topography, and morphology were recorded. SPSS (version 15.0 for Windows) was used.

Results In the period 1991–2008 were 13,170 cancers diagnosed. In women, cancer of the cervix is the most common (31%), followed by breast cancer (10%) and Kaposi's sarcoma (7%). In men, the most frequent are cancer of the prostate (16%), Kaposi's sarcoma (16%) and liver cancer (11%). Cancer in childhood (0–14 years) accounted for 5.6% of all cancers in both sexes. The three most common were Burkitt's lymphoma (18%), another non-Hodgkin lymphoma (13%) and Kaposi's sarcoma (13%) were diagnosed in 3111 2009–2010 cancers. The pattern of occurrence of cancers has remained.

Conclusions Most cancers (40%) are those in which it is causal relationship or a strong association with infectious agents and are potentially preventable. The observed pattern is similar to the developing countries without screening programs and with high prevalence of HIV/AIDS.

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Friday
22 November
2013

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Introduction Angiogenesis, the process by which blood vessels are formed, is a central event in tumour growth and metastasis.¹ The development of drugs to target the tumour vasculature is a promising therapeutic strategy.^{2,3}

Objective The antitumour effects of a focal kinase adhesion (FAK) inhibitor, PF 228 were evaluated in a human breast cancer cell line, MCF-7, and the effects of the drug on angiogenesis were investigated.

Methods Cells were seeded in 96 well plates and cytotoxicity determined using the crystal violet assay. Morphological studies were undertaken using transmission electron microscopy. Molecular markers p53, p21, flk-1 and caspase 3/7 were evaluated using western blot analysis. Bovine microvascular endothelial (BME) cells were grown on collagen gels and treated with the proangiogenic factor bFGF, or a combination of bFGF and PF 228. Angiogenesis was quantitated by determining the total additive length of all cell cords that had penetrated the underlying collagen gel.^{3,4}

Results PF 228 inhibited cancer cell growth and migration, and induced the apoptosis in these cells. In addition, the drug inhibited BME cells from invading the collagen matrix and organizing into capillary-like tube structures

Conclusion The results indicated that PF 228 could have potential as an anticancer and antiangiogenic agent in cancer chemotherapy.

WORK- SHOP

Madiba, Thandinkosi

**ANAL CARCINOMA IN THE KWAZULU-NATAL PROVINCE OF
SOUTH AFRICA: INTRODUCING THE KZN ANAL CANCER DATABASE**

**Free
communication
of abstracts IV**
14h30–17h30
Saturday
23 November
2013

Thandinkosi Madiba; Xolani Ntombela*
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Background Anal cancer is infrequent. The purpose of this study was to document our experience with carcinoma of the anus presenting to the KwaZulu-Natal Teaching Hospitals.

Patients and methods Patients with anal cancer were extracted from the on-going anal cancer database for years 2000–2012. Data collected included patient's demographics, site of tumour, staging, HIV status, co-morbidity, treatment form and follow up.

Results One hundred and seventy seven patients were identified from the database and included in the study. Mean age was 51 + 14 years and there were 78 males (M:F 1:1.3). The median age at presentation was 45 years for Africans, 62 years for Indians, 52.5 for Coloureds and 65 years for Whites. Forty patients tested positive for HIV positive, 11 were negative and the rest had unknown HIV status. The mean ages for HIV positive and negative patients were 40.75+9.2 and 55 + 11.1 years respectively. Squamous carcinoma occurred in 133 patients (115 anal margin; 18 anal canal), adenocarcinoma in 42 (23 anal margin; 19 anal canal) and there was one neuroendocrine tumour and one melanoma. Eleven patients presented with metastatic disease. Surgical resection was performed in 16 patients. Definitive and palliative oncological therapy was offered in 44 and 53 patients respectively. Thirteen patients confirmed dead.

Conclusion Anal cancer is an established disease in our setting. Squamous carcinoma is more common than adenocarcinoma. Chemo-radiation remains the mainstay of treatment for squamous carcinoma. Adequate treatment for adenocarcinoma remains elusive.

WORK- SHOP

Free
communication
of abstracts II
14h30–17h30
Friday
22 November
2013

Madiba, Thandinkosi

COLORECTAL CANCER IN KWAZULU-NATAL: AN ESTABLISHED DISEASE WITH A VARIABLE CLINICOPATHOLOGICAL SPECTRUM

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Introduction Colorectal cancer (CRC) is amongst the top ten cancers in South Africa and is a major contributor to the burden of disease. This study was undertaken to establish the clinicopathological patterns of CRC amongst the different population groups in the KwaZulu-Natal Province of South Africa.

Patients and methods All patients diagnosed with CRC at the KwaZulu-Natal Hospitals between in 2009 were enrolled. Outcome measures were demographics, clinical presentation, site of lesion, staging and grading of carcinoma.

Results A total of 485 patients were recruited into the study [African 19%, Indian (19%), Coloured (10%) and White (52%)]. Mean age was 62.97+14.97 years and Africans were significantly younger (51 years) than all the other groups combined (61 years) [$P<0001$]. The most common site in all population groups was the rectum (43-50%) followed by the sigmoid colon (13-25%) and the right colon (18-33%) with resection rates of 50% (African), 68% (Indian), and 69% (Coloured) and 7% (White). Staging was similar in the different population groups namely: stage I (2–9%), stage II (15–30%), stage III (25–38%), stage IV (7–13%) ($P=0.08$). Amongst Africans 25% were ≥ 40 years, and the African population represented 66% of all the cases who were ≥ 40 years of age.

Conclusion Colorectal cancer is an established disease that presents earlier among Africans. It has a variable clinicopathological spectrum. The site distribution, disease stage and tumour differentiation were found to be similar to that observed internationally. Site distribution and staging was similar in young and old presenters.

WORK- SHOP

Free
communication
of abstracts II
14h30–17h30
Friday
22 November
2013

Magaji, Bello

DESCRIPTIVE EPIDEMIOLOGY, SURVIVAL AND PREDICTORS OF SURVIVAL AMONG COLORECTAL CANCER PATIENTS TREATED IN AN ASIAN TEACHING HOSPITAL 2001 TO 2010

Bello Magaji^{*1}; Foong Ming Moy²; Chee Wei Law³; April Camilla Roslani⁴

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Objectives To determine the pattern of distribution, survival and predictors of survival in colorectal cancer patients treated at the University Malaya Medical Centre (UMMC), Kuala Lumpur, Malaysia.

Methods A mixed retrospective-prospective cohort study was used to identify the patients treated at the UMMC from 2001 to 2010. Statistics involved descriptive, Kaplan-Meier and Cox proportionate hazards regression model.

Results We included 1212 patients. Male to female ratio was 1.2:1. Majority were Chinese (67%), followed by Malays (18%), Indians (13%) and other minority groups (2%). Mean age was 61years (standard deviation 13). More left sided cancers were observed (sigmoid colon (20%), recto sigmoid junction (13%) and rectum (32%)). Dukes stage C and D accounts for 64%. Surgery (82%) was the most common treatment strategy. The median survival was 40 months (95% confidence interval (CI): 33.5, 46.5). One, three and five year survival was 74%, 52% and 43% respectively. While the Duke's stage-specific survival was A and B (65%), C (49%) and D (10%) respectively. Independent predictors of survival were male gender (Hazard Ratio (HR) 1.41; 95% CI: 1.12,1.76) Chinese ethnicity (HR 1.41; 95% CI: 1.07,1.85), elevated preoperative CEA (HR 2.15; 95% CI: 1.61,2.87), (HR 1.42; 95% CI: 1.09, 1.86), Dukes stages D (HR 2.85; 95% CI: 1.64, 4.96), emergency operation (HR 1.55; 95% CI: 1.09,2.21) and (HR1.41; 95% CI: 1.08, 1.83).

Conclusions Advanced stage cancers and low overall survival were found in our study. Therefore, we recommend screening, health e

ABSTRACT INCOMPLETE/EXCEEDS LIMIT

Manraj, Shyam

**TRENDS IN ENDOMETRIAL CANCER IN THE REPUBLIC OF MAURITIUS
OVER PAST TWO DECADES**

Shyam Manraj*

Ministry of Health and Quality of Life, Mauritius

Saturday
23 November
2013

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Objective To analyse data on incidence, mortality and survival study on Endometrial Cancer (EC) in Mauritius.

Background Republic of Mauritius is situated in the Indian Ocean with a racially mixed population of about 1:3 Million. Life expectancy in 2010 was 69.7 years in males and 77.0 years in females. Diabetes and Cardiovascular diseases are the first mortality cause and cancer ranks third.

Design EC incidence data was retrieved from the National Cancer Registry which is operational since 1989 and has reached population-based (PBCR) level as from 2001. Mortality data due to EC have been obtained from Civil Status office. A five year population based survival study on EC registered in 2005–2006 was also carried out.

Results During 1989–2010, 529 new EC cases have been registered in the Republic of Mauritius. ASRW incidence rates have risen from 2.02/105 for 1989–1990 to 7.11/105 for 2009–2010. It represents the fourth most common site (5.7%) in females after breast (40.5%), colorectum (9%) and cervix (8%). It is more common in urban areas (Expected/observed ratio (EOR) is 1.35) compared to rural ones (EOR=0.77). M/I ratio has steadily decreased from 0.31 in 1997–2000 to 0.18 in 2009–2010. Population-based five year survival rate for cases registered in 2005–2006 (N=69) was 71% overall and 80.3% cause specific.

Conclusions The drastic increase in EC in Mauritius mirrors the trends seen for female breast cancer in Mauritius and warrants adequate preventive and curative strategies.

WORK- SHOP

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Maphanga, Tonicah

THE CHANGING FACE OF BLACK CANCER PATIENTS AT CHARLOTTE MAXEKE JOHANNESBURG ACADEMIC HOSPITAL: 2001 TO 2008

Tonicah Maphanga*¹; Margaret Urban¹; Mazvita Sengayi²

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Objective Knowledge of cancer incidence and trends is inadequate in many parts of Africa, including South Africa. Using data from the on-going Johannesburg Cancer Case Control Study (JCCCS) we examined changes in cancer cases and demographics at Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) from 2001 to 2008.

Methods Data from JCCCS interviews and corresponding HIV-ELISA test results for the years 2001 to 2008 were examined. All subjects were newly diagnosed black African adult cancer patients seen prior to treatment in the Medical and Radiation Oncology Units at CMJAH. Descriptive analysis, including HIV status at interview, was done for the five most common cancer types during the time periods 2001–2004 and 2005–2008.

Results The total number of cancer cases for the eight year period was 9317 of whom 64% were female. The top five cancers in males from 2001–2004 were oesophageal 16%, lung 14%, oral cavity 12%, Kaposi sarcoma (KS) 11% and larynx 4%; for 2005–2008 oral cavity cancers were most prevalent at 15% followed by KS and lung cancers, both 12%, oesophageal 11% and non-Hodgkin Lymphomas 5%. In females for 2001–2004 breast cancer constituted 30% of all cancers, followed by cervix 25%, oesophageal 6%, KS 5% and ovary 3%; for 2005–2008 cervix was 32%, breast 30%, KS 6%, oesophageal and ovary, both 3%. Twenty-two percent of female cancer patients were HIV positive in 2001–2004 and 29% in 2005–2008 compared to 19% of male cancer patients in 2001–2004 and 27% in 2005–2008. Mean ages of males during the two periods were 52 and 53 respectively and for females 49 and 50 respectively.

Conclusion Changes in the prevalence of common cancers seen at CMJAH reflect the increase in HIV prevalence which has led to more cancers related to infective agents (e.g. KS, cervix, oral cavity).

PLENARY

Martin, Damali

BUILDING COLLABORATIONS FOR UROLOGY RESEARCH

Damali Martin*

National Cancer Institute, United States

Urology

09h10–10h30

Friday

22 November

2013

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The field of urology is diverse and multi-disciplinary and presents many opportunities for research collaborations, such as those to study prostate cancer. Prostate cancer is second most common cancer among men, worldwide and the most common cancer in US men in terms of incidence. Compared to other major cancers, very little is known about the causes of prostate cancer beyond the three risk factors, namely ethnic background, family history and age. In addition, causes for global variation of prostate cancer incidence among and within ethnic or ancestral groups remains poorly understood. Globally, investigators with cohorts of populations of similar ancestral backgrounds have formed international research consortia to investigate global variation of prostate cancer. Collaborations such as these can help to identify the causes of variations in prostate cancer incidence and mortality between and within different population groups, as well as the relative contribution of environmental, behavioral and inherited cancer susceptibility factors for risk of this disease.

Saturday
23 November
2013

Rosario Tumino¹; Nestory Masalu*²; Dino Amadori*¹; Heronima Joas²;
Charles Majinge²; Patrizia Serra³

¹Associazione Vittorio Tison Cultura e Solidarietà ONLUS, Italy;

²Bugando Medical Center, Tanzania; ³IRST, Italy

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Rationale An early diagnosis program for breast and cervical cancer (Vanda Project) is on-going in Mwanza and the surrounding lake area (12 districts with a population of 14,000,000). The aim of the project is to screen women aged 15–64 years living in the 12 districts.

Methods Women are invited to participate through local media and a mobile unit with a multidisciplinary team (including oncologist) operates within the districts. Interventions consist in Pap smear, clinical breast examination and breast self-examination.

Results Women, aged 15–64 years, are invited to participate and a mobile unit with a multidisciplinary team operates within the districts. Interventions consist in Pap smear, clinical breast examination; breast self-examination and training of district physicians to perform Pap smear and breast examination. Biopsy samples are examined locally, while the biological characterization of positive cases is carried out at the Romagna Cancer Center (IRST) in Italy. An exceptionally high stage distribution at diagnosis was observed: 30% in stage III and 20% in stage IV. To date 408 randomly selected samples have been analyzed by cytology, only 4% with inadequate material. Cytological data of the remaining 392 cases are: 85 (22%) normal; 216 (55%) infections (chiefly mycotic); 72 (18%) precancerous lesions (50% H-SIL according to Bethesda classification); 19 (5%) positive for cancer (mainly stages III–IV). Precancerous lesions became cancer (stage I) at histology in 44% of cases. Data entry is on-going and the processing, with regard to cancer of the breast, are planned for the next months.

Conclusions This project clearly shows the high feasibility and evident usefulness of a screening program for the early detection of cervical cancer in a high risk population.

Masalu, Nestory
**TELEMEDICINE FOR ONCOLOGY:
SHARE AND MEET FOR AFRICA" PROJECT**

Sunday
24 November
2013

Dino Amadori¹; Oriana Nanni²; Botteghi Matteo*³; Nestory Masalu*⁴;
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³SoftMed, Italy; ⁴Bugando Medical Center, Tanzania

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Rationale Nowadays the use of telemedicine is quickly spreading. Unfortunately its implementation is still a privilege of developed countries as they can count on more economic resources while it could be of great help and efficacy in underdeveloped countries with lack of health care facilities, allowing the performance of good level health care practices.

Objectives "Share and Meet for Africa" project performs a pioneeristic intercontinental telematic platform oriented to oncology and its related branches. Project goals are: to provide TLC services between European and African hospitals: conference call, second opinion, distant learning. To share radiologic and microscopy images and patients medical records for diagnostic purposes. To carry out GCP clinical trials through data collection monitoring and evaluation.

Material and methods Partnership between the Romagna Cancer Center (IRST-Italy) and the Oncology Department of Bugando Medical Centre (BMC-Tanzania) is deeply consolidated; training of BMC medical staff in Italy, direct drugs supply, support in setting up a radiotherapy unit, screening programs for Tanzanian female population and shared research programs. The telematic platform, developed by Softmed using Abilis technology, will strengthen this remote cooperation. It is now available the sharing of workflows and international GCPs, teleconsulting between the specialists of the two hospitals, clinical data remote entry and monitoring of patients enrolled in research trials.

Conclusions The pilot implementation confirmed the project feasibility. "Share and Meet for Africa" is characterized by a high level of innovation based on cost-effective solutions which increases efficiency and efficacy of health practices, allows interdisciplinary and synergistic cooperation, can boost the use of telemedicine in Africa.

Tséliso Maseela*
Medunsa & Esgo, Germany

Friday
22 November
2013

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Objectives A survey of the factors that impede the management of gynaecological cancer among the patients in Southern Africa was conducted, to elucidate the problems faced by health planners and care providers.

Methods The histories of 2154 cancer patients, admitted to Gynaecological Oncology at MEDUNSA over a period of 5 years, were studied. The questionnaires sought to establish the origin of the patients (periurban or rural), duration of symptoms before diagnosis, the first health-care provider consulted and initial treatment.

Results The malignancies admitted were in 82,30% Ca-cervix, 7% Ca-ovary, 4,5% Ca-corporis, 2% Ca-vulva, and 4% choriocarcinoma/gestational trophoblastoma. 80% of the patients with Ca-cervix had advanced stages. The ratio was in favour of rural-origin and low socio-economic status. 60% of the collective confessed initial consultation with providers of alternative or traditional medicine, and 26% primarily consulted orthodox medical practitioners or peripheral clinics.

Conclusion Extreme delay in diagnosis, as well as the intractable difficulty to win patients to conventional methods of cancer management, result in insurmountable high costs of therapy. Failure to tackle this problem reflects a culpable negligence of emotional and socio-medical requirements of cancer patients.

WORK- SHOP

Masood, Shahla

BREAST AND PROSTATE CANCER: SIMILARITIES AND DIFFERENCES

Shahla Masood*

University of Florida College of Medicine, Jacksonville, United States

Pathology II

14h30–17h30

Friday

22 November

2013

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Email: shahla.masood@jax.ufl.edu

Breast and prostate cancers are the two most common malignancies occurring among women and men and are the second leading cause of cancer deaths in the United States. It is estimated that 192,000 women will be diagnosed with breast cancer this year and approximately 25% of them will die of this disease within the next 10 years. Similarly, for men, prostate cancer has become a silent epidemic. The American Cancer Society predicts one man in six will be diagnosed with prostate cancer during his lifetime.

To improve quality of life and to reduce mortality from these malignancies, health care providers must now give attention to health protection and promotion, risk prevention and quality in health status among all population regardless of age, color, social status and ethnicity. A combined strategy of early detection and access to high quality treatment options, are the key in reducing mortality from breast and prostate cancers. Early detection and quality therapy requires a better understanding of the pathogenesis of these two malignancies. Currently there is sufficient evidence in the literature to suggest that there are definitely common features between breast and prostate cancer. These include but not limited to epidemiology, dietary factors, steroid hormones, genetic alterations, growth factors, theories of breast and prostate cancer development, and pathology. This knowledge will subsequently lead to establish strategies for common diagnostic procedures, therapy, prevention, monitoring and cure.

In this presentation, common features between breast and prostate cancer will be fully discussed and the differences will also be highlighted.

PLENARY

Masood, Shahla

PATHOLOGY AS THE CORE FOUNDATION FOR BREAST CARE

Shahla Masood*

University of Florida College of Medicine, Jacksonville, United States

Pathology

09h10–10h30

Friday

22 November

2013

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With the recent worldwide interest in establishment of breast centers offering integrated services via a multidisciplinary approach, the role of pathologists has become more conspicuous. As a member of the breast care team pathologists are now actively participating in breast tumor conferences and in treatment planning of breast cancer patients. Recognized as the foundation of high quality breast health care, many societies have established guidelines for breast pathology reporting and have endorsed the role of pathologist as partners in breast care.

Pathology is the study of human illness and it involves the morphologic and biologic recognition of abnormalities that are associated with a disease. Breast pathology represents an excellent example of this concept. By providing diagnostic information and by characterizing the biologic behavior of a breast lesion, a pathologist plays a critical role in a patient's life. Any mistake in this exercise is associated with serious consequences. In addition, there are many unresolved issues in breast pathology, which contribute to our limited understanding of the biology of breast cancer, variability in diagnostic criteria, and significant diversity in breast cancer management and therapy.

Furthermore, breast pathology has remained an under recognized discipline among the public and some health care providers, and its importance in diagnosis and disease management is not fully realized. In order to better serve our patients, particularly medically underserved women and those living in countries with limited resources; we must place emphasis on effectively using the talent and expertise of pathologists around the globe.

POSTER 105

Matejic, Marco

NAT1 AND NAT2 GENETIC POLYMORPHISMS AND INTERACTION WITH ENVIRONMENTAL RISK FACTORS ON SUSCEPTIBILITY TO OESOPHAGEAL SQUAMOUS CELL CARCINOMA IN SOUTH AFRICA

Saturday
23 November
2013

Marco Matejic*¹; Yabing Wang²; Iqbal Parker¹

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Objectives We investigated the role of polymorphisms in the NAT1 and NAT2 loci and their interaction with environmental risk factors on susceptibility to oesophageal cancer in Black and Mixed Ancestry South Africans.

Methods 732 oesophageal cancer patients and 768 healthy controls were genotyped for the NAT2 slow acetylator alleles (G191A, T341C, G590A, G857A) and the NAT1*10 allele (T1088A, C1095A), and the acetylation phenotype was inferred by the genotyping data. We tested for significant differences in the distribution of NAT genotypes and acetylator phenotypes between cases and controls by using the Pearson's Chi-Square test. Logistic regression analysis was used to test for gene-environment interactions with regard to oesophageal cancer risk.

Results The G191A variant (NAT2*5 allele) was associated with reduced risk of oesophageal cancer among Mixed Ancestry individuals (OR = 0.68; 95% CI = 0.52–0.88; P = 0.004). NAT1 and NAT2 acetylation phenotypes were not independently associated with oesophageal cancer risk in both population groups. However, exposure to tobacco smoke increased the risk only among NAT2 slow and intermediate acetylators in both Black (OR = 2.76; 95% CI = 1.69–4.52; P < 0.0001) and Mixed Ancestry population (OR = 10.1; 95% CI = 3.54–29.11; P < 0.0001). The alcohol-related risk was present only among Mixed Ancestry individuals carrying NAT2 slow and intermediate genotypes (OR = 2.77; 95% CI = 1.38–5.58; P = 0.004). NAT1*10/*10 genotype was associated with a protective effect from tobacco smoke exposure in the Black population (OR = 3.41; 95% CI = 1.95–5.96; P < 0.0001) and from alcohol consumption in the Mixed Ancestry population (OR = 3.41; 95% CI = 1.70–6.81; P = 0.001).

Conclusions NAT1 and NAT2 acetylation polymorphisms may have an important role in modifying the interaction between environmental risk factors and oesophageal cancer risk in Black and Mixed Ancestry South Africans.

WORK- SHOP

Free
communication
of abstracts I
11h00–13h00
Friday
22 November
2013

Mathew, Christopher

DETECTION OF GERMLINE AND SOMATIC VARIANTS ASSOCIATED WITH OESOPHAGEAL CANCER IN SOUTH AFRICAN POPULATIONS BY HIGH THROUGHPUT GENOMICS

Christopher Mathew*¹; Hannah Bye¹; James Campbell²; Iwanka Kozarewa²; Michael Simpson¹; Iqbal Parker³
¹King's College London, United Kingdom; ²Institute of Cancer Research, United Kingdom; ³ICGEB, University of Cape Town, South Africa

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Objective The aim of the study was to use high throughput genomics to detect germline genetic variants and somatic mutations associated with the development of oesophageal cancer in South African Black (SAB) and Mixed Ancestry (MxA) populations.

Methods DNA from cases of oesophageal squamous cell carcinoma (OSCC) and controls was genotyped for genetic variants associated with OSCC in other populations and 196,000 SNPs on the ImmunoChip, and tested for association with OSCC. DNA from 8 OSCC patients was screened for somatic mutations by whole-exome sequencing of matched blood and tumour DNA using Agilent target enrichment and next generation sequencing on an Illumina HiSeq2000. Sequences were aligned to the reference genome using Novoalign and variants called using SamTools and annotated using Annovar.

Results Germline genetic variants in ADH1B and ALDH2 were associated with OSCC in the MxA population, but no known OSCC risk variants were associated in the SAB population. ImmunoChip genotyping in the SAB population detected association of 20 SNPs from 10 different loci at $P < 1 \times 10^{-4}$. The strongest association was located in a growth factor receptor gene on chromosome 1 with a known role in tumour suppression ($P = 8.8 \times 10^{-7}$). Whole-exome sequencing of blood-tumour pairs detected recurrent somatic mutations in TP53, in a proto-oncogene regulating p53, and in a G protein-coupled receptor which controls cell proliferation.

Conclusions The genetic basis of susceptibility to OSCC in Africa appears to differ from Asian and European populations. The detection of somatic mutations driving tumour development may identify molecular targets for biological therapies.

WORK- SHOP

Mathew, Christopher

GENETIC STUDIES OF OESOPHAGEAL CANCER IN SOUTH AFRICA

Christopher Mathew*
King's College London, United Kingdom

AORTIC/IUBMB

oesophageal

cancer

symposium

09h00–10h30

Thursday

21 November

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Sub-Saharan Africa is a high risk region for oesophageal cancer, particularly squamous cell cancers (OSCC), with an age-standardised incidence of 13 cases per 100,000 in Southern and Eastern Africa. Genetic studies in South Africa have investigated the contribution of germline genetic variants to genetic susceptibility to OSCC in case-control studies. Tumours have also been studied to screen for somatic mutations such as genomic deletions and amplifications, and for point mutations in candidate genes.

Genetic association studies of genetic variants associated with OSCC in other populations have implicated several genes in susceptibility to OSCC in the Mixed Ancestry population of South Africa, including *ALDH2*, *GSTT2B*, *MSH3*, *PMS1* and *MLH3*. However, most of these studies have been negative in the South African Black population, including variants detected in genome-wide association scans in the Chinese population. This suggests that the genetic architecture of OSCC in African populations may differ from that elsewhere, and that unbiased genome-wide studies are needed to determine the genetic contribution to OSCC susceptibility in Africa.

Studies of somatic mutations in tumours from South African patients have reported frequent loss or gain of genetic material on multiple chromosomes, and mutation screening of the *TP53* and *CDKN2A* genes in OSCCs from the Black patients detected somatic mutations in around 20% of tumours. New high throughput DNA sequencing techniques are now available to sequence all coding regions (“exomes”) or whole-genomes in matched blood-tumour pairs to screen for somatic mutations driving tumour development in African OSCC.

POSTER 106

Saturday
23 November
2013

Mathewos, Assefa

ADVANCED BREAST CANCER IN ETHIOPIA: CHARACTERISTICS AND FOLLOW-UP OF 148 PATIENTS WITH STAGE 4 DISEASE

Assefa Mathewos*¹; Peter Zerche²; Aynalem Abreha¹; Solomon Bogale¹; Tigeneh Wondemagegnehu*¹; Eva Johanna Kantelhardt*²

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Objective There is little information on advanced breast cancer in sub-Saharan Africa. This study evaluates patients presenting with breast cancer (BC) at the Radiotherapy Center/Addis Ababa University. This is the only public institution offering oncologic therapy in Ethiopia.

Methods All patients July 2005 to December 2010 with pathologically proven BC were included. Patients with clinically or radiologically suspected metastasis were evaluated. Eligible patients were offered free endocrine therapy. Follow-up visits were recommended depending on tumor load every month up to six-monthly. Patients were considered lost to follow-up (LTFUP) if >6 months since last appointment. For logistic reasons, vital status could not be obtained. Patients LTFUP were assumed deceased; we consider time until LTFUP surrogate for survival estimates. This indicates the worst-case scenario of survival.

Results Of 1287 patients, 148 presented with metastasis. Ulceration was described in 50/100, inflammation in 9/99, chest involvement in 7/42 and peau d'orange in 11/107 patients. At time of diagnosis, 23 (16%) patients had bone-only, 17 (11%) had skin- or distant lymph node-only, 106 (71%) had visceral and 3 (2%) had brain metastasis. Of all, 29 received surgery; 103 received chemotherapy; 85 endocrine received therapy. At closing date 31.3.2011 a total of 92 patients (57%) were LTFUP. Median FUP was 7.6 months. 12-months estimated survival time until LTFUP was 46% (SD 4.3).

Conclusion This study from sub-Saharan Africa is reporting on considerably good outcome of 148 stage 4 BC patients considering the limited resource setting. Our data is in line with an overall-survival of 40% in stage-4 patients of Uganda (n=64; Gakwaya 2008). Limitations are lack of diagnostic accuracy for metastasis (differential diagnosis e.g. tuberculosis) and lack of data on mortality.

Friday
22 November
2013

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Objective OSCC is among the highest causes of cancer-related death in South Africa. Metformin, an anti-diabetic drug, has anti-proliferative effects on cancer cells although both positive and negative effects when combined with conventional chemotherapeutic drugs. Here we investigate the effects of metformin on South African-derived OSCC cell lines and the combination of metformin with cisplatin, 5-fluorouracil and mitomycin C.

Method OSCC cell proliferation was assessed by haemocytometer counts and flow cytometry. Cytotoxicity of metformin-combination therapy was evaluated by MTT assay. Effect of metformin on cisplatin-DNA adduct formation was quantified by inductively coupled plasma mass spectrometry. Reducing equivalents were measured by MTT assay.

Results Metformin significantly reduced OSCC cell proliferation (WHCO1 50%, WHCO5 32%, and SNO 39%) and increased the ratio of cells in G0/G1:G2/M (WHCO1 74%, WHCO5 62%, and SNO 74%) relative to untreated controls. However, metformin-treated cells displayed higher EC50 values versus cisplatin treatment alone (WHCO1 78%, WHCO5 140%, and SNO 156%), which preliminary data suggests is due to reduced cisplatin-DNA adduct formation (WHCO1 19.3%, WHCO5 14.3% and SNO 18.7%). Metformin raised levels of intracellular reducing equivalents relative to untreated cells (WHCO1 29%, WHCO5 19% and SNO 51%), which coincides with the insignificant effect of metformin on EC50 of mitomycin C, which requires reductive activation. Early studies show little alteration in 5-fluorouracil cytotoxicity with metformin.

Conclusion This study demonstrates that metformin can be used to halt cell proliferation of OSCC cells and although it abrogates the effects of cisplatin, it could be used with mitomycin C and 5-fluorouracil chemotherapy.

WORK- SHOP

AIDS-related malignancies

11h00–13h00

Sunday

24 November

2013

Mbulaiteye, Sam M

CANCER IN PERSONS WITH HIV INFECTION: RATIONALE AND FEASIBILITY OF USING HIV/AIDS CANCER MATCH STUDY DESIGN TO OBTAIN TIMELY SCIENTIFIC AND PUBLIC HEALTH DATA IN LOW-RESOURCE SETTINGS

Sam Mbulaiteye*

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Understanding the overlap between cancer and human immunodeficiency virus (HIV) is crucial for science and public health in contemporary Africa. In 2008, about 715,000 new cancer cases were diagnosed and 542,000 cancer deaths were recorded in Africa. These numbers will nearly double to 1.27 and 0.97 million, respectively, by 2030. About one-third of the cancers diagnosed are linked to exogenous infections and 50% of these are linked to seven viruses.

This public health burden overlays the unprecedented burden resulting from HIV infection. In 2009, an estimated 22.5 million persons in Africa were people living with HIV/AIDS (PLHA). Although HIV is not directly carcinogenic, HIV infection is associated with significantly increased risks of some cancers, notably Kaposi sarcoma (20–0 times) and squamous cell carcinoma of the conjunctiva (10 times), and the risk may be increased for other cancers, including cervical cancer (2 times) and Hodgkin lymphoma (10 times). Patterns for other virally associated cancers, e.g., liver, penis, nasopharynx, are increased with HIV. While, competing mortality from common infections, like tuberculosis and malaria, may have contributed to low cancer burden in PLHA in the era prior to availability of combination antiretroviral therapy (cART), the roll out of care programs starting in the mid-2000s has substantially increased the longevity of PLHA. Increased longevity from widespread access to cART could increase cancer risk in PLHA and to unique challenges, including the diagnosis, prioritization, and care of cancer in PLHA. Obtaining systematic estimates of burden of cancer in PLHA is important to address these challenges.

Three examples of computerized HIV/AIDS cancer-match (HACM) studies conducted in Uganda, Nigeria, and India will be presented to highlight feasibility, strengths, and limitations of HACM in resource-limited settings. Opportunities for hypothesis-driven studies and for linking science to practice will be highlighted.

WORK- SHOP

Free
communication
of abstracts I
11h00–13h00
Friday
22 November
2013

Mbulawa, Zizipho

INCREASED HIGH-RISK HUMAN PAPILLOMAVIRUS VIRAL LOAD IS ASSOCIATED WITH CERVICAL ABNORMAL CYTOLOGY

Zizipho Mbulawa*¹; Leigh Johnson²; Inger Gustavsson³; Jennifer Moodley²; David Coetzee⁴; Ulf Gyllenstein⁵; Anna-Lise Williamson⁶

¹University of Cape Town and National Institute for Communicable Disease, South Africa; ²University of Cape Town, South Africa; ³University of Uppsala, Sweden; ⁴University of Cape Town, South Africa; ⁵University of Uppsala, Sweden; ⁶University of Cape Town, South Africa

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Background Persistent high-risk (HR) human papillomavirus (HPV) infection and increased HR-HPV viral load are associated with the development of cervical cancer.

Objectives This study investigated the effect of human immunodeficiency virus (HIV) co-infection, HIV viral load and CD4 count on the HR-HPV viral load; and also investigated the predictors of cervical abnormalities.

Methods Participants were 292 HIV-negative and 258 HIV-positive women. HR-HPV viral loads in cervical cells were determined by the real-time polymerase chain reaction.

Results HIV-positive women had a significantly higher prevalence of HR-HPV compared to HIV-negative women (51% 131/257; 21% 61/290, respectively, $P < 0.0001$). Among the HR-HPV positive participants, HIV-positive women were found to have significantly higher prevalence of multiple HR-HPV infections compared to HIV-negative women (49% 65/131; 28% 17/61, respectively, $P = 0.001$). HIV-positive women had a significantly higher viral load for combined alpha-9 HPV species compared to HIV-negative women (median 3.9 copies per cell compared to 0.63 copies per cell, $P = 0.022$) due to individual infected with multiple alpha-9 HPV types. This was not observed for individual HPV types. HIV-positive women with CD4 counts > 350 /mL had significantly lower viral loads for alpha-7 HPV species (median 0.12 copies per cell) than HIV-positive women with CD4 < 350 /mL (median 1.52 copies per cell, $P = 0.008$), but no significant difference was observed for other HPV species. High viral loads for alpha-6, alpha-7 and alpha-9 HPV species were significant predictors of abnormal cytology in women.

Conclusion HIV co-infection is significantly associated with higher alpha-9 HPV viral load levels in women. High HR-HPV viral load was found to be the predictors of cervical abnormal cytology.

Sunday
24 November
2013

Eva Mbwilo*
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Background and objectives Rhabdomyosarcomas (RMS) are soft tissue tumours of skeletal differentiation that are relatively common. They present a diagnostic challenge in histopathology laboratories where immunohistochemistry (IHC) staining is not routine. They tend to mimic many other tumours morphologically like small round blue cell tumour. The main objective of this study was to determine the reliability and validity of morphological diagnosis of rhabdomyosarcoma using haematoxylin and eosin (H & E) in the Department of Pathology.

Methods This was retrospective cross sectional laboratory based study which includes consecutively selection of 200 cases of rhabdomyosarcoma diagnosed by H&E in the period from 2000 to 2011 extracted from the archival tissue block from the Department of Pathology. The blocks were re-cut and stained with H and E and IHC (myogenin) and re-read. Epi Info version 7.0.8.0 (2011) was used for data analysis. Confidence interval of 95% was used and a p value of ≤ 0.05 was considered statistically significant. Results were presented using tables, histogram and photomicrograph.

Results The diagnostic accuracy of the histological diagnosis of rhabdomyosarcoma using H & E in this study was 84%. The sensitivity and specificity of histology in the diagnosis of rhabdomyosarcoma were 96.23% and 79.59% respectively. The positive and negative predictive values of H & E were 62.96% and 98.32% respectively. The kappa score was 0.6486.

Conclusion Therefore confirmation of all RMS cases diagnosed by H and E using IHC is necessary, as haematoxylin and eosin method has high false positive rate.

PLENARY

McCormack, Valerie

BREAST CANCER IN SOUTHERN AFRICA: INSIGHTS FROM PREVALENT SUBTYPES AND DOWN STAGING TRENDS

Breast cancer

09h10–10h30

Saturday

23 November

2013

Valerie McCormack*¹; Caroline Dickens¹; Annelle Zietsman²;
Danuta Kielkowski³

¹International Agency for Research on Cancer, France; ²Windhoek Central Hospital, Namibia; ³National Cancer Registry and Research, South Africa

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Improvements in breast cancer survival rates are urgently needed in sub-Saharan Africa because the few estimates thereof are low and the incidence burden is projected to increase over the coming decades. Contributing to low survival, certain breast cancer prognostic factors have less favourable distributions in this region. The average breast cancer patient is younger, reflecting a younger at-risk demographic. Stage at diagnosis is advanced, which may partly be driven by, or may result in, raised age-specific prevalence of aggressive disease subtypes that have been reported in some studies. However, large-scale, systematic and reliable epidemiologic data on these prognostic factors are needed across African countries, across groups of women in Africa (e.g. by ethnicity, socio-economic group) and over time to benchmark these fundamental determinants of survival and to inform whether, by how much, and how down-staging can be achieved as this is the first step in improving patients' outcomes.

We will present findings from a unique effort across Southern Africa, comprising at-diagnosis receptor status in a breast cancer case series of over 10,000 newly diagnosed patients. Determinants of stage at diagnosis will be presented in subsets of these data, providing evidence that down-staging is possible, and suggesting that improvements in survival are realistic targets in this region.

WORK- SHOP

Oncology nursing

14h30– 17h30

Saturday

23 November

2013

McLeod, Deborah

FAMILY CENTERED CARE IN ONCOLOGY AND PALLIATIVE SETTINGS

Deborah McLeod*

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Oncology and palliative care nurses consistently identify family care as a central and valued aspect of their practice. However, health care systems are often rigidly organized around the care of the individual and nurses struggle to live up to their stated ideals with regard to families, constrained by systemic structures and demands, knowledge or skill. In North America families are much more consistently involved in cancer and end of life care than they are in other settings of practice. What that involvement looks like however varies a great deal. At times they are understood to be “a second set of ears”; at others, they are seen as the caregiver where their role is to learn about and provide care to their ill loved one. Occasionally they are seen as suffering from the illness as well, albeit in different ways than the patient. When this is the case, nurses care for family members as well as the patient, seeing them as a unit. It is unfortunate that this is not much more often the case, given the vast amount of research that documents the burdens, distress and suffering of family members.

Drawing on the literature and our learning from several projects, this presentation offers an argument for involving family members more deliberately and systematically. Findings from a project examining nurses’ practice with families will be presented along with possibilities for improving family nursing care.

POSTER 108

Thursday
21 November
2013

Michael, Lukoma

THE EXPERIENCES OF MULTIDISCIPLINARY TEAMS IN A NATIONAL REFERRAL HOSPITAL: A CASE OF MULAGO HOSPITAL

Lukoma Michael*¹; Jack Turyahikayo*²; Elizabeth Namukwaya*²; Mhoira Leng²

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Objective A multidisciplinary approach is the standard practice for the management of cancer. Mulago Radiotherapy Unit (MRU) and the Uganda Cancer Institute (UCI) hold multidisciplinary meetings (MDT) to discuss management of challenging cases. The primary role of these meetings is to tailor patient's treatment to pathology, imaging, surgical findings, laboratories and patient's performance and preferences. Palliative care (PC) should be an integral part of patient care.

Methods The MDT includes surgeons, radiation and medical oncologists, palliative care clinicians, pathologists, radiographers, oncology and radiology nurses, family physicians, pharmacists and social workers. The teams meet on different days and venues. The MRU hosts weekly MDT meeting attended by patients and the UCI convenes a monthly tumour board which includes video conferencing to international colleagues. The mode of discussion entails reviews of cases with consensus of opinion on the line of management based on available evidence and providing feedback to primary doctors where necessary.

Results 50 meetings have been documented in the past 1 year though several others have taken place. Our achievements include coordinated management of patients with a significantly reduced waiting time, interdisciplinary collaboration in patient care, bridging knowledge gap between specialties, training as well as research. We will present illustrative cases and differences between the 2 models as well as focus group discussions of the impact.

Conclusion The establishment of multi-disciplinary working with integrated PC is an important component of cancer care. Further work is needed to streamline and develop interdisciplinary working and smooth patient pathways.

Miguel, Fernando

**RADIOTHERAPY DEPARTMENT OF THE NATIONAL ONCOLOGY
CENTER OF ANGOLA: A NEW BEGINNING**

Friday
22 November
2013

Susana Oliveira*¹; António Frederico*²; José Alves³; Iracelma Neto³;
Mário Lange²; Fernando Miguel*²

¹MedicalConsult, SA/National Oncology Center of Angola, Angola; ²National
Oncology Center of Angola, Angola; ³MedicalConsult, SA / National Oncology
Center of Angola, Angola

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Objective The treatment of cancer by radiation in Angola is recent. This study aims to perform an overview of the Radiotherapy in Angola and to present some future perspectives, regarding the National Oncology Center (CNO) mission.

Methods A historical review of the Radiotherapy in the CNO was performed. The current status was identified, taking into account equipment, techniques, and staff, the population coverage, and some clinical data collected since the beginning of treatments.

Results Radiotherapy treatments started in September of 2012. Until May of 2013, a total of 175 patients were treated with 3D-CRT in one Linear Accelerator (LA) performing a mean of 24 treatments daily. At date, this is the only public hospital in the country with a Radiotherapy Department. Staff is represented by a high qualified team. Most of the patients come from Luanda (68%) with a prevalence of the feminine gender (83%) with cervical cancer (44%).

Conclusions Radiotherapy is a recent option for the Angolan population with cancer. With the increasing of the staff training level, and the perspective of more linacs and a Brachytherapy unit in a near future, it will be possible for Angola to provide better and more comprehensive treatments for their cancer patients.

**POSTER
110**

Mindiera, Christopher

**EXPLORING THE EXPERIENCES OF PATIENTS LIVING WITH CERVICAL
CANCER AT NDIOMOYO PALLIATIVE CARE, SALIMA, MALAWI**

Christopher Mindiera*
NdiMoyo Palliative Care, Malawi

Friday
22 November
2013

Correspondence Mindiera, Christopher
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Introduction Cervical cancer is the second common cancer in women worldwide, and a number one cancer amongst women in Malawi. However, many women in Malawi seek treatment when the disease has reached inoperable stage; the majority are told to wait at home while a few access palliative care service.

Objectives The study aimed at exploring some of the experience of patients living with cervical cancer at NdiMoyo Palliative Care Salima Malawi.

Study design and methods The study was an exploratory study and utilized qualitative data collection and analysis method. An in-depth interview was conducted using a semi-structured interview guide on purposive sample of 6 women registered with NdiMoyo Palliative Care Centre. Thematic content analysis was used to analyze the qualitative data.

Findings The following themes were developed from the narrations of the women regarding their experiences of living with cervical cancer: health seeking behaviour, physical impact of diagnosis, psychosocial/sexual impact of the disease, spiritual impact of the illness and positive impact of palliative care treatment.

Recommendations There is need to create community awareness on the symptoms of cervical cancer of both individuals and health professionals to allow treatment to be initiated. Awareness of the benefits of palliative care for those with advanced disease needs greater acceptance also.

PLENARY

Mohammed, Sulma

BREAST CANCER SCREENING IN RURAL SETTING: LESSONS FROM THE SUDAN

Breast cancer

09h10–10h30

Saturday

23 November

2013

Sulma Mohammed*¹; Dafalla Omer Abuidri Abuidris²; Ahmed Elsheikh²; Majdeldien Ali²; Hassan Musa²; Elgaili Elgaili²

¹Purdue University, United States; ²National Cancer Institute, Gezira University, Sudan

Correspondence Mohammed, Sulma

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Breast cancer has a low cure rate in low-income and middle-income countries because patients often present with late-stage disease that has metastasized to other organs. We assessed whether the implementation of a cancer awareness and breast examination programs that uses local, volunteer women could increase the early detection of breast cancer in a rural area of sub-Saharan Africa.

We did this pilot study in two counties in Gezira State, Sudan. We chose Keremet (56 villages) as the experimental county and Abugota (79 villages) as the control county. Female volunteers from villages in Keremet were trained in the detection of breast abnormalities. When trained, volunteers visited households in their village and screened women aged 18 years or older for breast abnormalities, referring women with suspected breast cancer for medical diagnosis and, if necessary, treatment at the district hospital. We also ran a cancer awareness program for both men and women in study villages. Villages in the control population received no intervention. Between Jan 1, 2010 and Oct 10, 2012, 10309 (70%) of 14788 women in Keremet were screened. 138 women were identified as having breast abnormalities and were referred to the district hospital for diagnosis and treatment. 20 of these women did not report to the hospital. Of the 118 women who did report, 101 were diagnosed with benign lesions, eight with carcinoma in situ, and nine had malignant disease. After treatment, 12 of the 17 women with either carcinoma in situ or malignant disease (four had early breast cancer and eight had ductal carcinoma in situ) were disease-free and had a good prognosis. In the control villages, only four women reported to the center: one was found to have a benign lesion while three were diagnosed with advanced disease.

Our findings show that a screening program using local volunteers can increase the detection of breast cancer in asymptomatic women in low-income rural communities.

WORK- SHOP

Mohammed, Sulma

INTRODUCTION: CANCER BIOLOGY SESSION

Sulma Mohammed*¹; Rakesh Jain²

¹Purdue University, United States; ²Harvard Medical School and Massachusetts General Hospital, United States

**Joint AORTIC-
ASCO**

symposium

14h30–17h30

Saturday

23 November

2013

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Cancer is a genetic disease, but the tumor microenvironment plays an indispensable role in tumor progression, metastasis and treatment. This session will discuss pre-clinical and clinical findings on emerging therapies that target cancer cells and/or its microenvironment, and progress in personalizing these therapies to individual patients.

WORK- SHOP

Mohammed, Sulma

TARGETED THERAPY TO TREAT METASTATIC BREAST CANCER

Sulma Mohammed*
Purdue University, United States

**Joint AORTIC-
ASCO**

symposium

14h30–17h30

Saturday

23 November

2013

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Lymphatic system is known to be intimately associated with metastasis; therefore, we developed a method for collection of lymph in a rat model for breast cancer metastasis. To interrogate this fluid we employed both MALDI-TOF/TOF and nanoLC-chip MS/MS for shotgun proteomic analysis. We have identified 269 proteins from rat lymph. Our data shows that lymph from metastatic tumor bearing animals has a unique protein expression fingerprint that includes metastasis biomarkers such as hemopexin and insulin like growth factors I and II. This suggests that evaluation of lymph may reveal important metastasis biomarkers that could potentially facilitate diagnosis and therapy of breast metastatic cancer.

Mokwatle, Gloria

COUNSELLING PATIENTS WITH THE DUAL DIAGNOSIS OF CANCER AND HIV

Gloria Mokwatle*¹; Pheladi Kale¹; Ruth Benjamin²

¹NHLS/MRC Cancer Epidemiology Research Group, South Africa;

²Charlotte Maxeke Johannesburg Academic Hospital, Johannesburg, South Africa

Sunday
24 November
2013

Correspondence Mokwatle, Gloria

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Objective Due to South Africa's extensive HIV epidemic many people receive diagnoses of HIV infection and of cancer at the same time. We endeavour to summarise the main challenges of counselling these patients.

Method As this is a relatively new field of counselling the knowledge is continually increasing. The experiences of oncology and research nurses and psychologists in the Radiation Oncology Department at Charlotte Maxeke Johannesburg Academic Hospital have been combined as a guideline for others in South Africa.

Results Receiving a dual diagnosis may lead to defaulting on treatment for both. Talking through how the person may have acquired the HIV is an important first step. This must be done in a culturally sensitive manner. Significant delays in cancer treatment can occur when patients "shop around" for diagnosis and treatment venues where they feel most comfortable.

Conclusion Guidelines for counselling patients with concurrent diagnoses of HIV and of cancer should be developed for use in South Africa. These should be available at all levels of clinical care, not just at academic hospitals.

WORK- SHOP

Paediatric oncology

11h00–13h00

Sunday

24 November

2013

Moreira, Claude

PRISE EN CHARGE DES ENFANTS ATTEINTS D'UN CANCER EN AFRIQUE EXPÉRIENCE DU GROUPE FRANCO-AFRICAÏN D'ONCOLOGIE PÉDIATRIQUE

Claude Moreira*

Paediatric Oncology Unit, Senegal

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Le Groupe Franco-Africain d'Oncologie Pédiatrique (GFAOP) a été créé en octobre 2000 avec pour objectif général d'améliorer la prise en charge des enfants atteints d'un cancer et de préparer le futur de l'oncologie pédiatrie en Afrique. Le GFAOP qui regroupe actuellement 13 pays, est constitué de 15 unités d'Oncologie Pédiatrique (UOP) Les principales actions ont concerné:* La recherche: entre 2001 et le 2012, cinq études de faisabilité ont permis de développer des protocoles pour le néphroblastome, les lymphomes, les Leucémies Aiguës Lymphoblastiques (LAL), la maladie de Hodgkin et le rétinoblastome.* Le soutien matériel qui a permis en particulier de mettre à la disposition des UOP les médicaments nécessaires aux chimiothérapies et aux traitements de soutien.* La formation: Elle est pratique sous forme d'échanges bilatéraux d'infirmiers entre pays plus avancés et pays d'Afrique subsaharienne et théorique par le biais de séminaires de formation intensive en France et au Maroc. Les résultats sont encourageants:* Après 10 ans d'activités, plus de 3000 enfants ont été pris en charge dans les différentes UOP d'Afrique subsaharienne.* Plus de 30 infirmiers ont bénéficié d'une formation théorique et pratique et 12 médecins ont réussi au Diplôme Inter-Universitaire d'Oncologie Pédiatrique (DIUOP).* Les taux de survie pour les principaux cancers inclus dans des protocoles sont de, 60% pour le lymphome de Burkitt, 70% pour le néphroblastome, 54% pour les LAL et de 71% pour la Maladie de Hodgkin. Le futur est riche en défis:* Consolider les acquis, améliorer les résultats et développer de nouveaux protocoles.* Elargir notre action au maximum d'enfants atteints d'un cancer en Afrique: 75000 nouveaux cas sont attendus chaque année!* Développer les soins palliatifs et le soutien psychologique en oncologie pédiatrique.

WORK- SHOP

Radiation and chemotherapy

14h30–17h30

Friday

22 November

2013

Morgan, Susan

PROGRESS IN CANCER CONTROL IN AFRICA: THE VALUE OF PARTNERSHIPS

Susan Morgan*¹; Marion Pineros Petersen¹; Rolando Camacho¹;
Diogo de Sousa Neves¹; Jean Marie Dangou²

¹International Atomic Energy Agency, Austria; ²WHO AFRO, Democratic
Republic of Congo

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Although cancer accounts only for a small percentage of deaths in the World Health Organization (WHO) Africa region, the relative increase of cancer incidence expected for 2030 will be as much as 87% compared with the estimates for 2008. In 2009, the IAEA and the WHO, including the International Agency for Research on Cancer (IARC), joined forces and signed an arrangement for the implementation of the WHO-IAEA Joint Programme on Cancer Control in order to facilitate the coordination of activities and resources of all organizations in providing evidence-based and sustainable support for the establishment of comprehensive NCCP in low and middle income countries.

This presentation will provide an overview as to the status of cancer control in Africa, as determined via the IAEA led impACT review missions, a service intended to assess the status of cancer control plans and activities of a Member State and its readiness to develop and implement a long term radiation medicine infrastructure and capacity building plan, including the relevant safety, regulatory and quality assurance requirements, within the framework of a national cancer control programme. Its implementation is coordinated with the WHO and other IAEA/PACT partners and supported by WHO regional and country offices.

WORK- SHOP

Radiation and chemotherapy

14h30–17h30

Friday

22 November

2013

Morgan, Susan

VUCCNET INTRODUCTION, GOALS AND OBJECTIVES

Susan Morgan*

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There is a drastic shortage of accessible knowledge and quality training programmes in Africa for comprehensive cancer control. In particular, local capacity to train and mentor practitioners within the region is not sufficient to ensure sustainable cancer control and to counter the effects of brain drain. The International Atomic Energy Agency (IAEA), through its Programme of Action for Cancer Therapy (PACT) in cooperation with its international partners in cancer control, launched, in 2010, an initiative to establish a Virtual University for Cancer Control supported by regional cancer training and mentorship networks.

This presentation will provide an update as to the advent of the VUCCnet sub-Saharan Africa inter-governmental organisation to support education and training of a variety of workforces across the spectrum of cancer control.

WORK- SHOP

Moshiri, Mahmood

HAAH: A NOVEL AND PREDICTIVE SERUM BIOMARKER FOR EARLY CANCER DETECTION AND MANAGEMENT

**Free
communication
of abstracts II**

14h30–17h30

Friday

22 November
2013

Mahmood Moshiri*
Panacea Global Inc., Canada

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Background Human Aspartyl (asparaginy) β -hydroxylase (HAAH) is an enzyme expressed prenatally and re-expressed in cancer cells but not in normal cells. Its function is consistent with cancer etiology: growth, motility and invasion of the cancer cells. HAAH is a transmembrane protein and is readily shed in blood of cancer patients. It is a cancer specific biomarker. The specificity of the biomarker was confirmed using immunohistochemistry ($n > 1,000$), gene expression analysis ($n > 4,000$), in vivo binding ($n = 7$) and immunoassays ($n = 7$).

Objectives To introduce HAAH as a “cancer specific biomarker” and present a test for early diagnosis of cancer.

Methods Panacea Global’s cancer diagnostic test measures the level of HAAH in patients’ serum by enzyme linked immunosorbant assay or ELISA. The method is CLIA certified in the United States and the analyte specific reagents are manufactured under GMP specifications.

Results In a blinded clinical study involving lung, breast, prostate and colon cancer patients, as well as non-cancer patients for a total of 857 patients’ serum specimens, the following results were obtained: sensitivity, 94.7% ($n = 857$); and specificity, 94.3% ($n = 211$). The overall accuracy was 94.6%. The means were 25.7 ng/ml, 34.6 ng/ml, 17.6 ng/ml, and 30.0 ng/ml for prostate, lung, breast, and colon cancer specimens respectively. The mean for non-cancer was 0 ng/ml. The cancer patients were positively diagnosed as such by standard method of care (including biopsy) and were in various stages of cancer. For the prostate cancer group, the HAAH level did not correlate with PSA as expected. The test had comparable accuracy for Stage 1 lung cancer which is difficult to diagnose.

Conclusion The relevance of HAAH to cancer makes this diagnostic test useful for the management of patients by physicians. The test has excellent accuracy under ideal conditions and expected to perform well under routine patient management situations. The test can be used for initial

ABSTRACT INCOMPLETE/EXCEEDS LIMIT

POSTER 112

Friday
22 November
2013

Mossanda, Kensese

HEPATOCELLULAR CARCINOMA: INTERACTION BETWEEN MULTIPLE HEPATITIS VIRAL INFECTIONS AND MYCOTOXINS INGESTION IMPLICATING OXIDATIVE STRESS

Kensese Mossanda*
Walter Sisulu University, South Africa

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The incidence of hepatocellular carcinoma (HCC) in the former Transkei (Eastern Cape-South Africa) is the most higher in the world (43%) as a result of traditional food (maize, peanuts) storage conditions allowing the growth of mycofungi producing mycotoxins such as aflatoxins. Due to the high prevalence of multiple viral hepatitis: hepatitis B virus (HBV), hepatitis C virus (HCV) and hepatitis D virus (HDV) in association with the consumption of mycotoxin-contaminated food, their management should take into account the mechanisms involved in the progression of HCC and the activity of each drug used. This study aims at explaining the mechanism of HCC aggravation in patients having multiple hepatitis viral infections in association with mycotoxins ingestion.

During the above mentioned multiple hepatitis viral infections in HIV-patients, more reactive oxygen (ROS) and nitrogen species (RNS) are expected to be generated from xanthine oxidase (XO) and nicotinamide dinucleotide (phosphate) NAD(P)H system. Their assault on DNA double strands and Aflatoxins will lead respectively into DNA unwinding and damage and Aflatoxin activation with formation of AFB1-metabolites intercalating into DNA strands breaks. In addition, Malondialdehyde (MDA) and 8-hydroxy-2'-deoxyguanosine (8-OHdG), are major DNA damage factors that provide free radicals involving in cancer development. All these reactive products generated from DNA damage, proteins and lipids break down have detrimental effects to the cell. The exacerbation of the oxidative stress will finally inactivate p53 tumor suppressor gene in the onset and in the progression of HCC.

Understanding the above described mechanism will improve strategies for the prevention and treatment of HCC.

Thursday
21 November
2013

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Objective Prostate cancer is the second most common cancer among men. This review is an attempt to evaluate the extent of prostate cancer and attendant morphologic prognosticators in Zimbabwe.

Materials and methods The department of Pathology at the teaching hospital of the University of Zimbabwe Medical School is the only public sector laboratory that offers surgical pathology services to the entire nation of thirteen million people and handles approximately nine thousand surgical specimens annually. A retrospective study of all prostate surgical pathology cases examined from January 2011 to December 2011 was conducted. The review was to determine the total number of prostatic carcinomas, the Gleason grade, tumor volume and capsular invasion.

Results A total of two hundred prostate biopsies and surgical specimens were examined and of these forty two (21%) had a diagnosis of prostatic carcinoma. The patient age range was from 65 years to 84 years. Of these 19 had a Gleason score of seven or less and 21 had a Gleason score of eight and above. Tumor volume was evaluated in 30 cases and ranged from 30% to 95%. Of the 16 cases evaluated for capsular invasion 3 had positive margins.

Conclusion Prostatic adenocarcinoma is a significant problem in Zimbabwe comprising approximately 20% of prostatic surgical specimens with an age range of 65years to 84 years. Approximately half had a Gleason score of 8 or higher and an average tumor volume of 70%. A structured awareness dissemination of information on prostate cancer is urgently required in Zimbabwe.

WORK- SHOP

Mughal, Tariq CHRONIC MYELOID LEUKEMIA

Tariq Mughal*
Tufts University Medical Center, Boston

**Free
communication
of abstracts II**
14h30–17h30
Friday
22 November
2013

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The past three decades have witnessed chronic myeloid leukemia (CML), a clonal disease that results from an acquired genetic change in a single pluripotential hemopoietic stem cell, to have been served remarkably well both by advancements in cellular and molecular biology and the remarkable speed at which these findings were translated to transforming the therapeutic algorithm. The discovery of the cytogenetic events in the 1970s, following the landmark discovery of the Philadelphia chromosome in 1960, and the molecular events in the 1980s led to the seminal work by Brian Druker and his colleagues in the 1990s. These investigators found that a small molecule, now known as imatinib mesylate, could selectively block the enzymatic action of the ABL component of the BCR–ABL oncoprotein, which in turn led to the death of leukemia cells while leaving intact the residual nonleukemic hematopoietic cells in the marrow.

Although CML is a rare disease, the lessons learned have led to a major paradigm shift in cancer medicine in general. In my lecture, I aim to provide important preclinical and clinical aspects of CML, for hematologists, oncologists and other health professionals interested in the disease, with an emphasis on the African patient and the challenges posed by the lack of optimal diagnostic, monitoring and other ancillary facilities compounded by suboptimal access to therapy, both drugs and stem cell transplantation. I will discuss the novel efforts which can help improve the outcome of patients in Africa and how drug access can be improved by the efforts of the Alpine Oncology Foundation, in collaboration with the American Society of Hematology and the international CML foundation.

WORK- SHOP

Mugenyi, Possy

LEADERSHIP AND GOVERNANCE STRUCTURES NECESSARY FOR EFFECTIVE TOBACCO CONTROL IN AFRICA

Tobacco-related cancers

11h00–13h00

Saturday

23 November

2013

Possy Mugenyi*

Centre for Tobacco Control in Africa, Uganda

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Introduction Annually, tobacco use kills an estimated 6 million people globally with 10 percent of them attributable to second hand smoke. Tobacco use is the single most risk factor for four leading NCDs: cardiovascular, cancers, respiratory diseases and diabetes. Though Africa is still in the early stages of the epidemic, the prevalence especially among the youth is increasing and unless critical steps are undertaken, tobacco use will cause negative socio-economic effects.

Objectives The overall objective of the study was to document governance structures that influence tobacco control implementation and make recommendations to governments in Africa. Specifically, the study aimed at documenting progress in selected governments on tobacco control, describing governance infrastructure necessary for tobacco control and make recommendations to governments.

Methodology Reviewing Capacity Assessment/Needs Assessment and engagement reports, GTCR and other reports and KIIs. The review covered four countries: Uganda, Kenya, Mauritania, Angola and Gambia and WHO FCTC was the basis of measuring progress.

Results The five governance structures for effective tobacco control documented include: (i) Comprehensive legislation and policy; (ii) Coordination; (iii) National Tobacco Control Programme (budget and human resource); (iv) Vibrant CSOs and (v) local champion. The study found that Kenya which had the legislation and parts of the other structures made reasonable progress while other countries that lacked these five structures made minimal progress.

Conclusion and recommendation For Governments to effectively implement tobacco control, all the five governance structures need to be functioning.

WORK- SHOP

Mugenyi, Possy

LOW TOBACCO PRICES: A KEY FACTOR FOR HIGH TOBACCO CONSUMPTION AMONG YOUTHS IN UGANDA

Tobacco-related cancers

11h00–13h00

Saturday

23 November

2013

Possy Mugenyi*¹; Kofie Ntie²

¹Centre for Tobacco Control in Africa, Uganda; ²WHO AFRO, Uganda

Correspondence Mugenyi, Possy

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Introduction Annually, tobacco use kills an estimated 6 million people globally with 10 percent of them attributable to second hand smoke. Tobacco use is the single most risk factor for four leading NCDs: cardiovascular, cancers, respiratory diseases and diabetes. Though Africa is still in the early stages of the epidemic, the prevalence among the youths is increasing and unless critical steps are undertaken, tobacco use will cause negative socio-economic effects.

Methods Review of Global Youth Tobacco Surveys, Uganda Demographic Health Surveys and Tobacco Prices in Uganda (2008–2013).

Objectives Overall objective was to analyze the trend of tobacco prices in Uganda in the last five years and compare with the trend of tobacco consumption among the youths.

Results The consumption rates among youths increased from 12% and 11% respectively to 15% and 14% for boys and girls between 2002–2013, yet consumption rates among adults reduced from 25% to 15% for men and the rate for adult women remained at <3% between 2001–2011. Though the absolute market prices for tobacco products remained constant between 2008/9–2013 (June), the real prices went down if adjusted for inflation, a factor attributable to low taxes.

Conclusion and recommendation The prevalence of smoking is on the increase among the youths in Uganda partly due to low tobacco product prices that made them affordable. Government should revise tobacco taxes upwards to make to them expensive and unaffordable by the youths.

Muhimbura, Emmanuel

EVALUATION OF AGREEMENT BETWEEN CLINICAL DIAGNOSIS OF OCULAR SURFACE SQUAMOUS NEOPLASIA (OSSN) AND HISTOPATHOLOGY RESULTS AS SEEN AT RUHARO EYE CENTER, MBARARA, UGANDA

Friday
22 November
2013

Emmanuel Muhimbura*; Lloyd Harrison Williams
Mbarara University of Science and Technology, Uganda

Correspondence Muhimbura, Emmanuel
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Objective To determine the accuracy of clinical diagnosis of OSSN using histopathology as the gold standard.

Methods This was a retrospective study that utilized the theatre register at Ruharo Eye Center to capture the clinical diagnosis of all conjunctival tumours operated on during the period 1st January to 31st December 2012. The histopathology register at Mbarara University of Science and Technology Pathology department was used to capture the histopathology results of these specimens. This is because, all of the biopsy specimens are usually sent there for subsequent histopathology investigations. All the biopsy specimens without corresponding histopathology results were excluded from the study. Only biopsy specimen, with both clinical diagnosis and histopathology results were analyzed.

Results 247 conjunctival lesions were excised, 168 (68.02%) were recorded in the histopathology lab register. Histopathology results were available for 158 specimens, of which 146 (92.41%) had been clinically diagnosed as OSSN. 137 (86.71%) were histopathologically diagnosed as OSSN. Of the 146 specimens that were clinically diagnosed as OSSN, 11 (7.53%) turned out to be benign, 2 (1.37%) were Kaposi sarcoma and 1 (0.68%) was Solar keratosis. 132 were correctly diagnosed as OSSN (sensitivity of 96.35%). Clinically 12 specimens were diagnosed as Non-OSSN, of these, 5 (41.67%) were benign lesions, 1 (8.33%) was Kaposi sarcoma, 1 (8.33%) was a Malignant melanoma and 5(41.67%) were actually OSSN. Of the 21 specimens that were histopathologically diagnosed as Non-OSSN, only 7 were correctly diagnosed clinically as Non-OSSN (specificity of 33.33%), with a p-value of less than 0.001.

Conclusions Clinical diagnosis of OSSN is highly sensitive; hence a good screening test for OSSN, but its low specificity dictates subsequent histopathology for a definitive diagnosis.

POSTER
116

Mumbengegwi, Davis

**INVESTIGATION OF THE ANTINEOPLASTIC PROPERTIES OF
NAMIBIAN INDIGENOUS PLANTS: COLOPHOSPERMUM MOPANE
AND SCHINZIOPHYTON RAUNTANENII**

Friday
22 November
2013

Davis Mumbengegwi¹; Florence Dushimemaria*¹; Ronnie Bock²
¹Multidisciplinary Research Center, University of Namibia, Namibia;
²Department of Biological Sciences. University of Namibia, Namibia

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Global incidences of cancer are rising, a similar trend has been observed in Namibia. The Namibian cancer registry (2011) recorded an increment from approximately 4949 cancer incidences in 2009 to 6363 cancer cases within the Namibian population. It is imperative that the Namibian population access effective cancer treatment. Many cancer cases involve patients that live far away from major cities such as Oshakati and Windhoek, making regular and effective treatment unattainable, contributing to the poor prognosis of cancer.

Medicinal plants present a viable resource for the discovery and development of effective, relatively safe and affordable anticancer treatments. Methanolic plant extracts of *Colophospermum mopane* and *Schinziophyton rauntaneii* were evaluated as potential chemotherapeutic anti-cancer herbal supplements by analyzing for the presence of coumarins, anthraquinones, alkaloids, flavonoid and triterpenoids using thin layer chromatography. Phytochemical compounds were also quantified using colorimetric spectrophotometry for total alkaloids, phenols, saponins and terpenoids. Total antioxidant potential of each plant part was determined spectrophotometrically using the folin reagent method. Roots and bark extracts of both plants were found to possess coumarins, alkaloids, flavonoid and triterpenoids, in varying degrees. However, only *C. mopane* root extract demonstrated a weak presence of anthraquinone.

All plant extracts demonstrated high levels of both antioxidant and anti-protease activities. The in vitro antineoplastic properties of plant extracts will be evaluated using Vero-6, MCF-7 and PC-3 cancer cells. The mode of action will also be determined using protein expression analysis. Data analysis will be achieved using One-Way-ANOVA of the means of viable cells of different treatments and mean expression of p21 protein.

POSTER
117

Munatswa, Elvis

**ARE MEN GENERALLY UNABLE TO TAKE CARE OF THEIR HEALTH?
CHANGING MASCULINITIES IN THE WAKE OF PROSTATE CANCER**

Elvis Munatswa*

University of Witwatersrand, South Africa

Sunday
24 November
2013

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Men are often characterised by a general unwillingness to seek help when experiencing problems in life. Popular stereotypes portray men's reluctance to ask for direction when they are lost; having difficulty sharing vulnerable feelings with friends and avoiding seeking needed help from professionals. These stereotypes raise an important question of whether men are able to take care of their health; that is, reporting and subsequently seeking early treatment for chronic diseases.

This study therefore inquired into men's perceptions on reporting and getting treated for prostate cancer as well as the change in their identities upon treatment.

The study adopted a qualitative approach, and explored men's health help seeking practices through in-depth interviews. Twenty male participants in Gauteng were recruited for the study via purposive sampling. The data collected was analysed using thematic content analysis.

Findings from this study point out the complexities in men's health practices and the eminent threat to manliness that often goes unabated, reducing men's choices to disregard their sexuality over surgery. The ramifications often go beyond personal into interpersonal relationships and these are useful for social work professionals to integrate understanding of masculine norms and stereotypes into an analysis of men's use of health services.

WORK- SHOP

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Munishi, Oresto

ESOPHAGEAL CANCER IN NORTHERN TANZANIA: GEOGRAPHICAL DISTRIBUTION AND CASE CHARACTERISTICS

Oresto Munishi^{*1}; Joachim Schuz²; Valerie McCormack²; Gibson Kibiki¹; Rachel Hanisch²

¹Kilimanjaro Christian Medical Center (KCMC), Tanzania; ²International Agency for Research on Cancer (IARC), France

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Objective Cancer of the esophagus exhibits large geographical variation worldwide. In the Northern Tanzania region of Kilimanjaro, it is the first male cancer and common among women. We performed an initial exploratory investigation of esophageal cancer in this region, by assessing (i) geographical variations in incidence rates and (ii) the prevalence of established lifestyle risk factors among cases.

Methods This was a descriptive retrospective study of histologically-confirmed cases of esophageal cancer diagnosed at the Kilimanjaro Christian Medical Centre, and identified through its Cancer Registry and/or endoscopy unit, from 1998–2008. Demographic data (age, sex, village) were obtained from hospital records and a risk-factor questionnaire was administered to patient's relatives.

Results 802 patients were diagnosed with esophageal cancer during the study period, the majority of which was squamous cell carcinoma. 59% of cases were male. Mean age at diagnosis was 60 years (inter-quartile range 50–70). The age-standardized incidence rates (ASR to world population per 100,000) were 6.8 and 3.8 in men and women respectively. Large geographical variations were observed. ASRs were over 9 in men in Moshi Urban, Moshi Rural, and Hai and less than 3 in Rombo, Mwanga and Same districts. 96% of male cases and 92% of female cases had drunk alcohol regularly; 38% and 5% had consumed strong illicit moonshine spirits (gongo). Amongst drinkers, drinking started at mean age of 13 years, with 25% having started by age 8 and mean lifetime years of drinking was 50 (SD 15.6). 87% of male and 36% of female cases had smoked tobacco regularly.

Conclusion Within the high esophageal cancer area of the Kilimanjaro region, the south and western districts adjacent to the Kilimanjaro mountain peak have over three-fold higher incidence rates than other districts in the region. Prevalence of alcohol and tobacco consumption is higher among cases than in previous population surveys.

**POSTER
118**

Mutala Shem, Nseizere

CANCER PATIENTS' EXPERIENCES OF CARE AND SUPPORT RECEIVED FROM HOSPICE JINJA IN LUUKA DISTRICT, UGANDA

Nseizere Mutala Shem*¹; Joanita Mbabazi¹; Frank Hasset²

¹Rays of Hope – Hospice Jinja, Uganda; ²Rays of Hope – Hospice Jinja, Ireland

Friday

22 November

2013

Correspondence Mutala Shem, Nseizere

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Background While Uganda is seen to be at the forefront in the development of palliative care in Africa, access to this care, particularly in rural areas, is still very limited. Many rural palliative care programs have been started. Hospice Jinja being one of them, has made tremendous steps in the extension of this service to the rural poor in the Busoga region by opening of outreach clinic sites at government health care facilities in now 26 facilities. Even with this rich history, little has been documented of the experiences that these patients have had as they attended and received care from Hospice Jinja.

Methods Semi-structured qualitative interviews were conducted. Patients were eligible for this study if they had been seen at home on any of the Luuka routes, had been on the program for at least 1 month and were 18 years and above. Patients were excluded if they were too sick or had lost their cognition ability and/or declined to be interviewed. Thematic saturation was achieved at 11 patients.

Results Participants reported positive experiences of the care and support received. These included; pain and symptoms control, reduced physical, psychosocial and spiritual suffering, taking a service to them in their home environments thereby improving accessibility while meeting their basic needs leading to restored dignity and improved quality of life. Negative experiences reported included; poor communication and limited access to the team in times of emergencies.

Conclusions Results from this study, consistent with similar studies revealed that palliative care providers extend and offer affordable, essential pain relief, reduced physical, psychosocial and spiritual suffering to terminally ill cancer patients. Such experiences that positively impacted their lives provide an opportunity for service providers to strengthen them, while negative experiences that were identified provide a basis for palliative care teams to improve and better service delivery.

Mohamed Mutocheluh*¹; Patrick Narkwa¹; David J Blackburn²

¹Kwame Nkrumah University of Science & Technology, Ghana; ²School of Cancer Sciences, University of Birmingham, United Kingdom

Friday
22 November
2013

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Background Hepatocellular carcinoma (HCC) or liver cancer is commonly associated with individuals co-infected with hepatitis B and or C viruses and reported as the third cause of mortality in cancer patients worldwide. Aflatoxin (mycotoxin) exposure in food is a significant risk factor for HCC. The type 1 interferon (IFN) pathway of the innate immune system regulates tissue growth and inflammatory pathways. The current study is testing the hypothesis that aflatoxins deregulate the type 1 IFN pathway and other anticancer pathways. The current study is being performed similarly to our previous one (Mutocheluh et al 2011, *JGV*; 92:2394–8). This study will reveal whether aflatoxins deregulate human anticancer pathways and the mechanisms involved.

Methods HEK 293 cells were transiently co-transfected with pSRE-luc (250ng) and pRLSV40-luc (1ng) and lipofectamine (2000 IU). 24 hours later the cells were treated with/without rIFN- α (100 IU/ml) and with/without aflatoxinB1 (20 μ g/ml) for 48 hours. In another experiment, the cells were treated with increasing amounts of aflatoxinB1 (0–500 μ g/ml); apoptosis was then induced for 72 hours and measured using the Trypan blue dye exclusion assay.

Results AflatoxinB1 up-regulated the type 1 IFN response by five-fold compared to background levels. Also, higher concentrations of aflatoxinB1 rescued the cells from apoptosis.

Conclusion These findings suggest the deregulation of both the type 1 IFN and the apoptotic pathways are ways by which aflatoxins cause cancer. Further studies to determine the effect of aflatoxins on 45 human cancer pathways in human liver tissue (HepG2) using the Cignal finder multi-pathway reporter array technique are on-going.

WORK- SHOP

Mutyaba, Innocent

ACCESS TO CANCER CHEMOTHERAPY AND PREDICTORS OF EARLY MORTALITY FOR CHILDHOOD CANCERS IN UGANDA

**BIG CAT
grants I**

09h00–10h30
Thursday
21 November
2013

Innocent Mutyaba*¹; Jackson Orem¹; Henry Wabinga²; Warren Phipps³; Corey Casper³

¹Uganda Cancer Institute, Uganda; ²Makerere University Kampala, Uganda;

³Fred Hutchinson Cancer Research Center, United States

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Although many childhood cancers respond well to chemotherapy, survival among children with cancer in sub-Saharan Africa is poor. Little is known about children's access to specialized cancer care in SSA or factors contributing to poor early outcomes.

We aimed:

1. To estimate the proportion of childhood cancer patients without access to chemotherapy in Uganda; and
2. To describe 30-day survival rates and predictors of mortality post diagnosis among children with lymphoma or Kaposi sarcoma (KS), the two most common pediatric cancers in Uganda.

A retrospective study of incident childhood (age < 20 years) cancers diagnosed in Kyandondo County, Uganda from 2006–2009. We compared records of the population-based Kampala Cancer Registry (KCR) and patient records at the Uganda Cancer Institute (UCI), Uganda's sole dedicated cancer treatment center. Patient characteristics were compared using Mann–Whitney and Pearson's chi-square tests. Kaplan–Meier method and Cox regression models were used to describe mortality.

Of the 658 pediatric cases recorded in the KCR, only 238 (36%) were presented to UCI. Patients in the KCR who did not present for care were more likely to be female, diagnosed in earlier years of the study, and to have a cancer other than KS or lymphoma. Of the 177 lymphoma and KS cases at UCI, 43.7% were Burkitt lymphoma (BL), 32.5% KS, and 23.8% other lymphomas. The post diagnosis 30-day overall survival rate was 77%. In multivariate analysis, age, gender, HIV status, platelets, and stage of cancer did not impact mortality. An increased risk of death at 30 days was predicted by presence of B-symptoms (HR=10.3, $p=0.05$), a diagnosis of BL compared to other lymphomas (HR=14.8, $p=0.007$), poor performance status (Karnofsky score < 70, HR=14.7, $p<0.001$), and anemia (HR 1.5-fold per 1g/dL decrease in hemoglobin, $p=0.002$).

Childhood cancer patients in Uganda have limited access to comprehensive care. Among those presenting to the UCI, a significant proportion die before they can benefit from chemotherapy. BL diagnosis, B-symptoms, performance status and hemoglobin level may be important predictors of early mortality among childhood cancer patients in sub-Saharan Africa.

WORK- SHOP

Mutyaba, Innocent

CORRELATES OF CHILDHOOD CANCER PRESENTATION IN KYADONDO COUNTY UGANDA

**Free
communication
of abstracts III
11h00–13h00
Saturday
23 November
2013**

Innocent Mutyaba*¹; Jackson Orem¹; Henry Wabinga²; Warren Phipps³;
Corey Casper³

¹Uganda Cancer Institute; Makerere University, College of Health Sciences, Kampala, Uganda; ²Makerere University, College of Health Sciences; Kampala Cancer Registry, Kampala, Uganda; ³University of Washington; Fred Hutchinson Cancer Research Center, Seattle, Washington, United States

Correspondence Mutyaba, Innocent
Email: imutyaba@fhcrc.org

Eighty percent of childhood cancers worldwide occur in developing countries. In Uganda, pediatric cancer cases comprise 9.4% of the total cancer burden, compared with a worldwide burden of only 2%. We aimed to describe the correlates of cancer presentation among children from Kyadondo County at Uganda Cancer Institute (UCI).

A retrospective study of incident childhood (age < 20 years) cancers diagnosed in Kyadondo County, Uganda from 2006–2009. We compared records of the population-based Kampala Cancer Registry (KCR) and patient records at the UCI, Uganda's sole dedicated cancer treatment center.

Overall, 736 pediatric cancer cases were identified. Hospital charts were available for 310 (median age 7 years, IQR: 4–11), among which 93% were histologically confirmed, 64% were male and 33.2% were first born. The commonest diagnoses were Burkitt Lymphoma (BL, N=87), Kaposi Sarcoma (KS, N=68), non-BL Non-Hodgkin Lymphoma (NHL, N=32), acute lymphoblastic leukaemia (ALL, N=28), nephroblastoma (N=28), and Hodgkin Disease (HD, N=20). The median age at presentation was highest for HD (11), ALL (10) and non-BL NHL (10) compared to BL (7), KS (8), and nephroblastoma (2.4). Twenty four percent of children were HIV-positive, and 39.7% had an unknown HIV serostatus. Of the HIV positive cases, 61 had KS, 6 (BL), 7 (non-BL NHL) and 1(nephroblastoma). B-symptoms were reported by 66.1% of cases. Thirty three percent of children were underweight for age and 14.2% were stunted. Malnutrition was commonest in KS (50% underweight and 31.1% stunted) and BL (36.9% underweight and 14.1% stunted). Anemia was present in 68.5% of cases and 55.6% had hemoglobin < 10 mg/dl. Advanced stage disease was present in over two thirds of patients for NHL, and in about half for KS, HD, and nephroblastoma. Among leukaemia patients, 85.7% had high-risk disease.

Pediatric cancers in Uganda are common and among patients presenting for care the majority are male and many are first-born. The infection-related cancers including KS and NHL predominate in Ugandan children, regardless of HIV serostatus. The high frequency of advanced stage cancer, anemia and malnutrition portend difficulties in treatment tolerance and poor outcomes in these children.

WORK- SHOP

Mwachiro, Michael

PREVALENCE OF ESOPHAGEAL SQUAMOUS DYSPLASIA AT TENWEK HOSPITAL IN WESTERN KENYA

**BIG CAT
grants I**

09h00–10h30
Thursday
21 November
2013

Michael Mwachiro*¹; Russ White¹; Steve Burgert¹; Jessie Githanga²; Sanford Dawsey³; Mark Topazian⁴

¹Tenwek Hospital, Kenya; ²University of Nairobi, Department of Pathology, Kenya; ³NIH/NCI, United States; ⁴Mayo Clinic Rochester, United States

Correspondence Mwachiro, Michael
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Objective Esophageal squamous cell carcinoma (ESCC) shows marked variation in incidence globally. Although relatively uncommon in most of the world, it is the most common malignancy seen at our institution. We therefore hypothesize that esophageal squamous dysplasia (ESD), the precursor lesion of ESCC, is common in our region. This study seeks to determine the prevalence of ESD in our region, and explore the impact of demographic data and environmental exposures, with the aim of developing a targeted screening program.

Methods 305 asymptomatic adults living within 50 km of our institution underwent trans-oral video endoscopy of the esophagus with Lugol's iodine chromoendoscopy, mapping of identified lesions, and biopsy with pathologic evaluation. Overall prevalence of ESD and age-specific prevalence of ESD by decade were calculated. Association between potential risk factors and ESD were analyzed by univariate and multivariate logistic regression.

Results We enrolled and endoscoped 305 subjects without adverse events. Subject drop-out rate was 3.6% and subject compliance was 97.5%. Overall, the prevalence of dysplasia was 15% (mild 12%, moderate 3% and severe 0.3%), while 48% had esophagitis. The prevalence of dysplasia differed with age, in subjects <40 years it was 10.2% and in subjects >40 years it was 17.1%. Geographic location and alcohol drinking were associated with a risk of dysplasia.

Conclusions There is a 15% prevalence of dysplasia in asymptomatic adults in this rural Kenya population. Future studies will evaluate other potential risk groups including first degree relatives of ESCC cases.

Mwachiro, Michael

A STUDY OF THE PREVALENCE OF ESOPHAGEAL SQUAMOUS DYSPLASIA AT TENWEK HOSPITAL IN WESTERN KENYA

Michael Mwachiro*¹; Russell White¹; Stephen Burgert¹; Jessie Githanga²; Sanford Dawsey³; Mark Topazian⁴

¹Tenwek Hospital, Kenya; ²University of Nairobi, Department of Pathology, Kenya; ³NIH/NCI, United States; ⁴Mayo Clinic Rochester, United States

Sunday
24 November
2013

Correspondence Mwachiro, Michael

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Objective Esophageal squamous cell carcinoma (ESCC) shows marked variation in incidence globally. Although relatively uncommon in most of the world, it is the most common malignancy seen at our institution. We therefore hypothesize that esophageal squamous dysplasia (ESD), the precursor lesion of ESCC, is common in our region. This study seeks to determine the prevalence of ESD in our region, and explore the impact of demographic data and environmental exposures, with the aim of developing a targeted screening program.

Methods 305 asymptomatic adults living within 50 km of our institution underwent trans-oral video endoscopy of the esophagus with Lugol's iodine chromo endoscopy, mapping of identified lesions, and biopsy with pathologic evaluation. Overall prevalence of ESD and age-specific prevalence of ESD by decade were calculated. Association between potential risk factors and ESD were analyzed by univariate and multivariate logistic regression.

Results We enrolled and endoscoped 305 subjects without adverse events. Subject drop-out rate was 3.6% and subject compliance was 97.5%. Overall, the prevalence of dysplasia was 15% (mild 12%, moderate 3% and severe 0.3%), while 48% had esophagitis. The prevalence of dysplasia differed with age, in subjects <40 years it was 10.2% and in subjects >40 years it was 17.1%. Geographic location and alcohol drinking were associated with a risk of dysplasia.

Conclusions There is a 15% prevalence of dysplasia in asymptomatic adults in this rural Kenya population. Future studies will evaluate other potential risk groups including first degree relatives of ESCC cases.

Sunday
24 November
2013

Mwafongo, Albert

TREATMENT OUTCOMES OF AIDS-ASSOCIATED KAPOSI'S SARCOMA UNDER A ROUTINE ANTIRETROVIRAL THERAPY PROGRAM IN LILONGWE, MALAWI: BLEOMYCIN/VINCRIStINE COMPARED TO VINCRIStINE MONOTHERAPY

Albert Mwafongo*¹; Nora Rosenberg*²; Wingston Ng'ambi³; Joe Gumulira³; Sam Phiri³; Mina Hosseinipour*¹

¹UNC Project, Malawi; ²University of North Carolina, Chapel Hill, United States; ³The Lighthouse Trust, Malawi

Correspondence Mwafongo, Albert

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Objectives Despite Kaposi's sarcoma (KS) being the most prevalent AIDS-associated cancer in resource limited settings, optimal treatment options remain unknown. We assessed whether use of bleomycin/vincristine compared to vincristine monotherapy was associated with improved treatment outcomes for AIDS-associated KS among patients initiating combination antiretroviral therapy (cART) in Malawi.

Methods All patients initiating cART and chemotherapy for AIDS-related KS were identified from an electronic data system from the HIV Lighthouse Clinic in Lilongwe, Malawi from 2002 to 2011. Treatment responses were compared between patients receiving vincristine monotherapy and vincristine/bleomycin. Binomial regression models were implemented to assess probability of tumor improvement for patients receiving vincristine/bleomycin compared to vincristine monotherapy after a complete cycle of chemotherapy (9–10 months). Chi-squared test was used for changes in CD4 count after six months of chemotherapy treatment.

Results Of the 518 patients with AIDS-associated KS on chemotherapy, 94% received vincristine monotherapy and 6% received bleomycin/vincristine. Distribution of treatment outcomes was different ($p < 0.001$), with tumor improvement among patients receiving vincristine monotherapy and bleomycin/vincristine regimens being 29% and 53% respectively ($p = 0.06$). Patients receiving bleomycin/vincristine were 2.16 (95% CI: 1.42, 3.28) times as likely to experience tumor improvement as to those on vincristine monotherapy. This value changed little after adjustment for age, gender, and tumor stage: 2.18 (95% CI: 1.35, 3.53). The mean change in CD4 count was similar for patients receiving vincristine monotherapy and bleomycin/vincristine ($p = 0.5$).

Conclusion Bleomycin/vincristine for the treatment of AIDS-associated KS was associated with better tumor response compared to vincristine monotherapy without impairing CD4 count recovery.

Lamech Mwapagha*; M Iqbal Parker

International Centre for Genetic Engineering and Biotechnology (ICGEB) and the University of Cape Town (UCT), South Africa

Friday

22 November

2013

Correspondence Mwapagha, Lamech

Email: lmwapa@gmail.com

Objectives Human papillomaviruses (HPVs) and Epstein–Barr viruses (EBVs) have been associated with several forms of cancer including oesophageal cancer. HPV11 DNA has been found to be integrated in nearly 40% of oesophageal tumours implicating it as a possible risk factor. This study compared the roles and effects of the HPV E6 gene on the expression profile of cellular genes.

Methods The HPV11 (low risk) and HPV18 (high risk) E6 genes were cloned into an adenoviral vector for transformation of normal HaCaT cells to induce their over-expression. cDNA microarray analysis using an Affymetrix platform compared the effects of the E6 genes on endogenous gene expression patterns during the early stages of transformation. Significantly differentiated genes were selected with a fold change of $\geq 2.0/\leq -2.0$ and a p value, $FDR \leq 0.05$ as the threshold cut off. Whole genome sequencing (WGS) was also done on DNA extracted from oesophageal biopsies for large insertion/deletion identification.

Results Preliminary microarray analysis identified a total of 153 and 704 genes that were significantly up or down-regulated respectively in HPV11E6 and HPV18E6. The E6 oncoprotein altered the transcription pattern of genes involved in several biological processes including cell cycle progression, metabolic processes, cell differentiation, immune response and inflammatory response.

Conclusion This study showed HPV 18E6 altered the expression of more genes compared to HPV11E6 falling into several functional groups providing insights by which E6 deregulates pathways and initiates cellular transformation. WGS is also being carried out to look for large insertions/deletions and determine the possibility of germ line events.

WORK- SHOP

Mwebesa, Eddie

PALLIATIVE CARE IN WOMEN WITH ADVANCED BREAST CANCER

Eddie Mwebesa*¹; Lydia Mpanga Sebuyira²; Frederick Nakwagala²

¹Hospice Africa Uganda, Uganda; ²Makerere University, Uganda

Palliative care II

14h30–17h30

Friday

22 November

2013

Correspondence Mwebesa, Eddie

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Introduction Breast cancer is the commonest non-HIV related malignancy affecting women attending Mulago National Referral Hospital, Uganda. Patients present late and Palliative Care (PC) is the only appropriate management.

Methods Cross-sectional study; aimed to describe the PC profiles of breast cancer patients attending Mulago hospital. 172 patients with confirmed breast cancer attending oncology, radiotherapy and breast clinics were recruited October 2008 to March 2009. Data was collected by questionnaire, a pain and symptoms inventory and using the African Palliative Care Association Outcome Scale.

Findings Patients' mean age was 52 years. 34% were peasants. 60% had lower than secondary education. 40% resided over 100km from the hospital. 69% had advanced cancer, 29% had metastatic disease, and 10% were paraplegic. Radiotherapy and chemotherapy had been received by only 42% and 31% respectively. 21% complained of mastalgia, 26% had bone pain, and 47% had other bodily pains. Pain had been present for over 4 weeks in 56% of patients. Only 19% had achieved satisfactory pain control. Overall 25% scored a variety of symptoms as being moderate to overwhelmingly severe. 15% tested HIV positive; only a fifth of these were on antiretroviral therapy. Many expressed that the illness had limited their work, that life was not worthwhile and some felt they were not at peace.

Conclusion Most patients in Mulago Hospital present with advanced breast cancer. Many suffer uncontrolled pain, symptoms, and disability, and express psychosocial and existential concerns. PC is an important aspect to complete the continuum of their care.

Friday
22 November
2013

Correspondence Mwebesa, Eddie
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Introduction Breast cancer is the commonest non-HIV related malignancy affecting women attending Mulago National Referral Hospital, Uganda. Patients often present late, with inoperable disease. Palliative care is the only appropriate management. No work is published in Uganda on the prevalence of pain and Palliative care needs of this group of patients.

Objectives To describe the prevalence of pain and Palliative care needs and profiles of breast cancer patients attending Mulago hospital, Uganda.

Methods 172 patients with confirmed breast cancer attending the oncology, radiotherapy and breast clinics were recruited into this descriptive cross-sectional study between October 2008 and March 2009. Data was collected during face-to-face reviews using a semi-structured questionnaire, a pain and symptoms inventory and the African Palliative Care Association Outcome Scale. SPSS was used.

Results The patients' mean age was 52 years. 34% were peasants. 60% had lower than secondary education. 40% lived over 100km from the hospital. 69% had late stage cancer; 29% had metastatic disease, and 10% were paraplegic. Radiotherapy and chemotherapy had been received by only 42% and 31% respectively. Pain: 21% had mastalgia, 26% had bone pain, and 47% had other bodily pains. Pain had been present for over 4 weeks in 56% of patients. Only 19% had achieved adequate pain control. Overall 25% reported moderate to overwhelmingly severe body weakness, tiredness, palpitations, anorexia, vomiting, constipation, and weight loss. 15% tested HIV positive yet of these only a fifth were on antiretroviral therapy.

Conclusion Most Mulago Hospital patients presented with advanced breast cancer. Many suffered uncontrolled pain, symptoms, and disability. A significant proportion are HIV positive yet not on antiretroviral drugs. Recommendation Pain control, symptom relief, palliative care, together with holistic management of the HIV should be accessible to breast cancer patients in Mulago hospital.

Saturday
23 November
2013

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Background Hypercalcaemia is a common metabolic disorder in cancer. It is associated with morbidity, poor quality of life and grave prognosis yet with nonspecific symptoms diagnosis might be difficult. The prevalence and associated factors with hypercalcemia among Ugandan breast cancer patients were unknown.

Objectives This study aimed at determining the prevalence, levels of severity of, and factors associated with hypercalcemia among breast cancer patients attending Uganda's national referral hospital. As surrogates these factors could assist early detection of hypercalcaemia since calcium levels are not routinely checked in hospital.

Methods This descriptive cross-sectional study recruited 172 breast cancer patients. Historical, clinical and laboratory data were collected. A pre-tested questionnaire and, a pain and symptoms inventory were used. Data analysis was performed using SPSS software. Factors associated with hypercalcemia at bivariate analysis were subjected to multivariable analysis to establish those that were independently associated with hypercalcemia.

Results Hypercalcemia (calcium >2.51mmol/L) occurred in 20.9 %. At bivariate analysis, tiredness, drowsiness, bone pains, not receiving cancer chemotherapy and hormonal therapy, a dry oral mucosa, not having had a mastectomy paraplegia, epigastric tenderness, late stage of cancer, presence of metastases being HIV positive and a urine dipstick showing blood were associated with hypercalcemia. At multivariable analysis, a dry oral mucosa (P<0.001), epigastric tenderness (P=0.014), paraplegia (P=0.017), and hematuria (P=0.028) were found to be independently associated with hypercalcemia.

Conclusion The prevalence of hypercalcemia in breast cancer in this hospital is high. Dry oral mucosa (dehydration), symptoms (epigastric tenderness, paraplegia, hematuria) and advanced disease strongly correlated with level of calcium. In such patients calcium levels should be ascertained and the disorder treated.

POSTER 125

Thursday
21 November
2013

Nabirye, Elizabeth

INFORMATION NEEDS AND SOURCES AMONG CANCER PATIENTS: THE PERSPECTIVE OF CANCER PATIENTS IN MULAGO NATIONAL REFERRAL HOSPITAL

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Objectives A diagnosis of cancer has a devastating effect on the physical, psychosocial and emotional well-being of patients, while its treatment and outcome may invoke uncertainty, fear and loss. This can in part be alleviated by adequate and accessible information appropriate to their needs. 75% of patients expressed they had insufficient information about their illness to help them plan for the future in a review of 165 case notes using a validated tool (APCA African POS). However little is known about the nature, type, format of information required and from whom it is best received in this setting.

Methods A qualitative exploratory study of women with cervical cancer to explore their perspective of information needs, ascertain sources of information currently used and preferences in receive information.

Results Many patients leave consultations unsure about their diagnosis and prognosis, confused about the meaning and need for further diagnostic tests, unclear about the management plan and uncertain about the true therapeutic intent of treatment. They also show deep rooted beliefs about the nature, cause and outcomes of cancer which reflect myths and poor information sources. Many access information from informal sources and do not rely on written material.

Recommendations Effective communication requires an understanding of what patients need to know and from whom they receive this information. Cultural, resource and education issues will be important in developing information sources with oral and aural sources exploited in addition to written. Volunteers may be an excellent source of i

ABSTRACT INCOMPLETE/EXCEEDS LIMIT

Friday
22 November
2013

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Objectives To provide insight into the clinical management of breast cancer patients on anthracycline-based treatment with a focus on the prevalence of anthracycline-induced cardiotoxicity (ACT). This pilot study will pre-empt investigation into the genetic basis of ACT whereby treatment may be individually tailored so that cardiotoxicity and subsequent cardiac dysfunction/impairment may be prevented or limited.

Design and method A retrospective patient file review was conducted on patients diagnosed between 2011 and the end of October 2012 at Groote Schuur Hospital in Cape Town. One hundred and sixty three breast cancer patients on adjuvant anthracycline-based chemotherapy were analysed. Demographics, factors influencing therapeutic decisions pertaining to cardiac risk, left ventricular ejection fraction (LVEF %) as a measure of cardiac function and chemotherapeutic regimen data were assessed.

Results The average patient in our study cohort was a female aged fifty-one of Mixed Ancestry/ Indian origin. We also observed an aggressive type of tumour notably in young African females. There was a significant trend for diminished cardiac function in patients after 3 cycles of anthracycline-based chemotherapy more so in patients on Adriamycin than those on Epirubicin, the less cardiotoxic derivative. 15.3% of patients on Adriamycin had their treatment amended whereby Adriamycin was substituted to Epirubicin.

Conclusion Determining risk of ACT using pre-existing clinical factors was not conclusive. However, this pilot study did show that there is significant cardiac dysfunction/impairment due to anthracycline-based treatment which warrants further investigation. The curative ability of chemotherapy particularly anthracycline-based chemotherapy must be counterbalanced with the absence of ACT therefore determining individual susceptibility to cardiotoxicity may hold the key to event-free breast cancer survival.

Sunday
24 November
2013

Levashni Naidoo*¹; Judith S Jacobson²; Anisa Mosam¹; Jamilla Aboobaker¹;
Ncoza C Dlova¹

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Background Kaposi Sarcoma (KS) is a tumour of the blood and lymphatic vessels that often presents with cutaneous lesions. HIV/AIDS increases the risk for and aggressiveness of KS, and KwaZulu-Natal (KZN), South Africa, has among the world's highest rates of both conditions. Antiretroviral therapy (ART), which became available in South Africa in 2003, improves outcomes of both conditions, but the prevalence of ART use among KS patients has not been reported recently.

Methods We reviewed charts of histologically confirmed HIV-KS patients initially presenting in 2011 in KZN. We analysed the association of ART with CD4 count, urban/rural residence, fungating lesions, ulceration and lymphedema, and treatment delay, in logistic regression models controlling for age and sex.

Results Of 194 documented HIV-positive patients, 168 (86.6%), were receiving ART at presentation. Overall, the mean CD4 count was 266 cells/ μ L. The mean age at presentation was 36.6 (SD 10.1) years. Females presented at a younger mean age (33.5 years) than males (39.0 years ($p < 0.001$)). Among patients on ART, the mean age of females was 34.7 years and that of males 39 years ($p = 0.003$). Among ART naïve patients, the mean age of females was 23.7 years and that of males 39 years ($p = 0.003$). ART naïve patients were 3 times as likely as those receiving ART (15.4% vs. 4.8%) to have visceral involvement ($p = 0.03$).

Conclusion The use of ART has become widespread in South Africa and has improved patient outcomes. The mean age at presentation has increased, especially among females. The mean CD4 count among these HIV-KS patients was higher than that found in previous studies at this site. Females are no longer shouldering a disproportionate burden of disease.

WORK- SHOP

Naidoo, Richard

MOLECULAR IMAGING USING FORMALIN FIXED PARAFFIN EMBEDDED (FFPE) GASTRIC CANCERS

**Free
communication
of abstracts I**

11h00–13h00

Friday

22 November
2013

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Objective The primary aim of this investigation was to interrogate the use of MALDI-TOF to determine the level and extent of peptide/protein profiles on FFPE histopathology tissue.

Background MALDI imaging is a new technique that allows the investigation of the molecular signatures directly on tissue sections. The technology allows for the quantification of peptides/proteins and their spatial distributed on these tissues. The technology has tremendous potential for the discovery of new biomarkers in cancer.

Method Gastric cancer cases were obtained from the archives of the Division of Anatomical Pathology, University of Cape Town/National Health Laboratory Services. Formalin fixed paraffin embedded (FFPE) tissues was sectioned at 6 μ and picked up on ITO slides. The tissues were then antigen retrieved before MALDI preparation. The corresponding H&E sections were also scanned before image preparation. The tissue was coated with trypsin followed by the addition of the matrix coating. This step was done on the Bruker Imageprep Instrument. The slides were then analysed in the Bruker Autoflex 111 instrument. The spectra were captured automatically and this is followed by analysis using the Fleximaging software.

Results The peaks from the spectra generated were assigned different colours which could be imaged directly on the tissue section. We were successful in identifying specific peptide which was overexpressed in certain areas of the tissue.

Conclusion We have shown that FFPE tissue can be used for MALDI imaging. This method is suitable for the identification and distribution of new biomarkers in association with the histological phenotype.

POSTER 128

Friday
22 November
2013

Nakami, Sylvia

STRENGTHENING AND INTEGRATING PALLIATIVE CARE IN HEALTH SYSTEMS: A CASE FOR SUSTAINABLE PALLIATIVE CARE SERVICES PROVISION IN UGANDA

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Objective of the study The Palliative Care Association of Uganda has one of its objectives to support comprehensive integration of palliative care services in every district of Uganda by 2016 through a system of training, mentorship and support supervision. The study is to find out if the project “strengthening and integrating palliative care into the national health systems through a public health primary care approach in 3 hospitals in Uganda contributing to MDG goal 6 universal access to treatment for HIV/AIDS for all those in need, and halting and reversing the spread and impact of other major diseases including the new burden of NCD will provide for sustainable palliative care services in the health facilities of Uganda.

Methodology The study is a desk review of baseline data before project intervention from the three hospitals. Desk review of all the project intervention reports from the three hospitals. Desk review of monitoring visits to the three hospitals. Interview with hospital management and trainees from the three hospitals. Interview with health workers in hospital without project interventions.

Results The findings show that the interventions have: Increased on the number of trainees offering pain assessment and relief from 20 to 60 in all the three hospitals. Hospital management support is evident from the identification of trainees for further skills development. District management where the hospitals are located committed to budgeting for palliative care. CMES on palliative care have happened in one hospital. Updates and case meeting are happening in all three hospitals. There is consistent supply and utilisation of palliative care medication in the three hospitals down from no morphine supplied. The fourth hospital without intervention had no palliative care trained health workers, no morphine stocks, no CMEs on palliative care.

Conclusion For more sustainable palliative care services provision, strengthening the health systems is very vital. The health workers already in services provision offer the pain assessment and relief as part of their daily duty as opposed to creating a different structure that works in isolation.

WORK- SHOP

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Nattey, Cornelius

LUNG CANCER RISK ATTRIBUTABLE TO OCCUPATION: IN A CASE CONTROL STUDY IN BLACK SOUTH AFRICANS, 2001–2008

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Objective Lung cancer is the fourth most common malignancy in South Africa. Although smoking is a well-established risk factor, the role of occupational exposures in the local setting is not clear. We estimated the lung cancer risk attributable to common South African occupations.

Methods Data from the on-going Johannesburg Cancer Case-Control Study (JCCCS) of black African adult cancer patients (2001–2008) was used. Information from 579 lung cancer cases and 1120 frequency matched controls was analysed. Controls were randomly selected from cancers not known to be associated with the effects of tobacco, matched by sex and age (± 5 years). Usual occupation and/or workplace stated at interview were used as an indicator of occupational exposure. Odds ratios (OR) and 95% confidence intervals (CI) were estimated using unconditional logistic regression and attributable fraction (AF) by Miettinen's formula. We adjusted for smoking pack years, HIV status and domestic fuel use.

Results The mean ages of cases and controls were 56.0 and 57.1 respectively. Among men the adjusted OR for lung cancer was 3.0 (95% CI 1.4–6.4) in miners and 1.7 (95% CI 1.3–3.2) in those working in transport occupations. In women working as domestic worker (maids, child minders etc.) the adjusted OR was 7.3 (95% CI 1.7–11.3) whereas working in the food & beverage industry, the adjusted OR was 4.9 (95% CI 1.4–26.8). Occupation/workplace resulted in an AF of 14% in men and 26% in.

Conclusion Occupational exposures may play a major role in lung cancer risk in black urban females as well as a smaller role in males. Further studies are needed to assess possible specific exposures in various occupations.

WORK- SHOP

Free
communication
of abstracts II
14h30–17h30
Friday
22 November
2013

Ndiaye, Fatou Samba Diago

**CHRONIC MYELOID LEUKEMIA IN SENEGAL; EPIDEMIOLOGY, CLINIC,
CYTOGENETIC AND PROGNOSIS ASPECTS:**

**FOLLOW UP OF 56 PATIENTS WITH THE PATIENT INTERNATIONAL
GLIVEC PROGRAM ASSISTANCE (GIPAP)**

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Methodology We conducted a retrospective study on 5 years (June 1st, 2006–December 31st, 2011), among 56 patients reached of CML. The diagnosis was retained in front of the presence of Philadelphia chromosome and/or Bcr/Abl transcription fusion. We carried out analyses of prevalence, and multivariate to search the prognostic factors.

Results Over one period of 5 years, we followed up 56 patients, divided as follows: 30 women (53.6%) and 26 men (46.4%). The ratio-sex was 0.86. General signs were noted like asthenia in 71.4% of cases, a clinical anaemia in 76.8%, slimming in 60.7% and fever in 28.6% of the cases. A spleen hypertrophy quasi constant was found at 82.1% of the patients, followed by the deterioration of the general state with a statute performance estimated at 3 in 10 cases and 2 in 15 cases. In 70.9% of the cases, the patients were seen at the chronic stage of the disease (n=40), in phase accelerated in 23.6% of the cases (n=13) and in acute leukaemia in 5.5% of the cases (n=3). On the cytogenetic investigation, 30.35% of the patients (n= 17) presented 100% of transcribed BCR- ABL in blood exploration (FISH). 21patients on 56 (37.5%) had chromosomal anomalies added again to type of duplication, deletion of trisomy 8de chromosome variable Philadelphia etc. All our patients were put under Imatinib Mésylate In chronic phase, the IM were given to the amount of 400 mg/j at the adult and 300mg/j at the teenager. On the evolutionary level, 89.3% of the patients (n=50), presented a complete hematologic remission to the 3rd month of the treatment. The cytogenetic answer was major in 60% of the cases including 5% of complete, minimal in 25% of the cases and minor answer cytogenetic in 15% of the cases. The follow up of our patients showed: 10 patients (18.2%) had lost their hematologic answer and a clonal evolution was observed in 5.4% of the cases.

Conclusion Senegalese CML evolution depend on clinical presentation of the disease, additional chromosomi

ABSTRACT INCOMPLETE/EXCEEDS LIMIT

Saturday
23 November
2013

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Introduction GLIVEC, as first line targeted therapy in the management of chronic myeloid leukaemia (CML), is well established. The availability of this drug through the GLIVEC Patient Assistance Programme (GIPAP) has had great positive impact on the management and outcomes in patients with CML in the continent of Africa as elsewhere. Limitations have been encountered in the use of GLIVEC in resource poor environments mainly pertaining to monitoring, compliance to treatment and follow up.

Methods A retrospective review of patients with CML enrolled into GIPAP September 2004 to May 2013 at the Parirenyatwa Hospital Harare was carried out to evaluate the pattern of practice of the management of CML using GLIVEC. The hospital serves as the national focal point for GIPAP.

Results A total of 50 patients were seen during this 9 year 9 months period. The age range of the patients was 9 to 85 years. The treatment duration with GLIVEC was 0–104 months. The patients' and disease characteristics are described. Patterns of GLIVEC use are also analysed and presented.

Conclusions There is still limited data from the African continent on the use of GLIVEC in treating CML and other diseases where the drug is indicated. Prospective regional studies of GLIVEC in CML may be warranted particularly in patents with concurrent HIV disease.

Ndlovu, Ntokozo

RADIOTHERAPY EDUCATION IN AFRICA: AN IAEA/AFRA SURVEY

Ntokozo Ndlovu*¹; Aynalem Woldemariam²; Gebrehmedin Tigeneh²;
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²Addis Ababa University, Ethiopia; ³International Atomic Energy Agency, Austria;

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Objective The lack of qualified staff in sufficient numbers is one of the main obstacles to the development of adequate and modern radiotherapy services in Africa. Modern standards of quality and radiation protection require that radiotherapy services be adequately staffed with qualified personnel.

Methods In the framework of IAEA/AFRA Regional Project RAF6045, a survey was conducted among participating African countries from July 2012 to January 2013 to assess the existence, number and location of education programmes for the five main radiotherapy professions: radiation oncology (RO), medical physics (MP), radiation therapy (RTT), radiation biology and oncology nursing. The survey data was supplemented by the IAEA Directory of Radiotherapy Centres (DIRAC) database, reports from national coordinators of RAF6045 and reports from IAEA expert missions.

Results In Africa 24/55 countries have operational radiotherapy services. Of these 20 (36%) provide any level of radiotherapy-related training or academic education. Overall, there are 39 education programmes in RO, 36 in MP, 45 for RTTs, 14 in radiation biology and 21 for oncology nurses. The RO training programmes in 9 Anglophone countries follow the UK model offering comprehensive programmes called "clinical oncology". Two countries with no operational radiotherapy services, conduct training programmes for professionals; oncology nursing (Chad), and RO and RTT (Madagascar). Only 2 countries offer training programmes in all 5 professions. One country offers programmes for 4 professions. Five countries offer programmes for 3 of the professions, 4 countries offer programmes for 2 of the professions and 7 countries offer programmes for only 1 profession.

Conclusions A review of minimal standards of quality of the existing programmes should be undertaken in order to identify centres capable of conducting international fellowship training. An overview and database is important to target support in order to strengthen these programmes.

Ndoye, Medina

BLADDER TUMOR IN SÉNÉGAL EPIDEMIOLOGICAL ASPECTS AND MANAGEMENT

Saturday
23 November
2013

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Introduction The bladder cancer is diagnosed each year in 2.7 million people worldwide. In Africa, bladder cancer is often associated with schistosomiasis. In Sénégal, the bladder cancer was the most common urogenital cancer in a study done in 1984 [7]. In this work, we propose to study the epidemiological and therapeutical aspects of bladder tumors in the general hospital of Grand Yoff. This was a retrospective descriptive study on all cases of bladder cancer Diagnosed in the urology department of the Hospital General de Grand Yoff between 2005 and 2012. The data were processed using Epi Info version 7.

Results 424 cases of bladder cancer have been identified, an average of 61 cases of bladder cancer per year. The average age of patients was 53 years, ranging from 5 to 78 years. The concept of living in endemic areas of schistosomiasis was found in 44% of cases. The histological appearance, after tumor resection, found squamous cell carcinoma in 54% of cases. Nearly 80% of patients had an invasive appearance and 13% had metastasis. The bladder resection was the main treatment for patients; followed by a cystectomy when it was indicated.

Conclusion Bladder tumors management represent a big problem in Senegal. The impact of higher incidence, the early age of onset and the late diagnosis in advanced stages make it a real public health problem. These clinical and epidemiological features should encourage studies to better understand the pathophysiology, for a better prevention strategy.

WORK- SHOP

Ngendahayo, Louis

**CASE OF DIFFUSE LARGE B CELL LYMPHOMA IN PATIENT WITH
HIV/AIDS DISEASE**

Pathology I
11h00–13h00
Friday
22 November
2013

Louis Ngendahayo*
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A male patient, 50 years old was admitted at emergency room on May 30, 2013 with an occlusive syndrome. He had abdominal pain and a syndrome of sub-acute progressive abdominal bloating, impaired general condition. The patient has CD4 (172), anemia to 6.9 grams / litter. The scan shows abdominal masses especially the ileocecal region and spleen with small bowel obstruction. He has started recently antiretroviral therapy composed of: Tenofovir, Memtricitabine, Efavirar and Bactrim. The laparotomy and assessment of the lesions showed ascites abundance, intussusceptions ileocecal mesenteric tumor in the region, large tumor 10 x 4 cm jejunal mesenteric, large lymph 4 cm and 5 cm in diameter in the distal and metastasis on the spleen. Histology findings of the lymph node and splenic section showed a population of large cells which are highly hyper chromatic and have large nucleolus. The immunohistochemistry result shows positivity for Leucocyte common antigen (LCA), CD 20 and MUM 1. T cell markers including CD5 and CD3 are positive only in a minor population of infiltrating T cells. The features are consistent with a diffuse large B cell lymphoma. Unfortunately, the patient died five months later as there is no oncology care unit in Burundi.

WORK- SHOP

Palliative care II

14h30–17h30

Friday

22 November

2013

Ngoma, Twalib

PALLIATIVE CARE IN CHILDREN WITH BURKITT'S LYMPHOMA

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Palliative care in children with cancer at the Ocean Road Cancer Institute (ORCI) has been an integral part of providing adequate care for pediatric oncology patients. In our experience paediatricians and palliative care specialists are required to work together to ensure that children who need palliative care get the service. Both are essential because a paediatrician may not have advanced knowledge of palliative care and a palliative care specialist is unlikely to be familiar with the complexity of working with families where the child is the patient.

The focus in this presentation will be on the practice of palliative care for children with cancer at the Ocean Road Cancer Institute. The presentation will highlight key areas where paediatric palliative care differs from that of adults, outline the barriers to providing palliative care to children with cancer and underscore the fact that whether a child's cancer is terminal or treatable, palliative care helps the child to live his/her life to the fullest by improving quality of life. In our practice we measure the determinants of the quality of life of the children with cancer quantitatively by using pain and other symptom relief scales and available tools for measuring psychosocial/spiritual wellbeing. We have learned over the years that children with cancer at the Ocean Road Cancer Institute have fear of losing normalcy or the fear of dying and that a caring nurse-patient relationship encourages psychosocial and spiritual wellbeing through trust, understanding, presence, and support. Addressing the fear through spiritual care can greatly influence the child's hope and purpose in life as well. On the whole in our experience, investing in psychosocial and spiritual components of palliative is necessary to improve quality of life for pediatric oncology patients and helps children to have a more successful recovery.

WORK- SHOP

Niang, Lamine

PLACE DE LA PROSTATECTOMIE RADICALE DANS LA PRISE EN CHARGE DU CANCER DE LA PROSTATE EN AFRIQUE

Prostate cancer

14h30–17h30

Saturday

23 November

2013

Lamine Niang¹; Médina Ndoye^{*2}; Issa Labour²; Serigne Gueye²

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En Afrique, les données sur le cancer de la prostate sont rares et sa prise en charge pose problème surtout pour les formes localisées. Au Nigeria, Osegbe en 1997 avait retrouvé une incidence hospitalière de 127/100.000. Au Bénin, le cancer de la prostate est le premier cancer urologique avec une prévalence hospitalière de 12%. L'augmentation du taux d'incidence dans les pays développés est croissante, estimé à 8 % par an, l'utilisation à grande échelle du PSA permet ainsi un diagnostic de plus en plus précoce et à des stades curables du cancer de la prostate. En Afrique, l'absence de dépistage et les difficultés d'accès aux soins de santé sont à l'origine d'un Diagnostic souvent tardif, à un stade localement avancé avec des taux de PSA souvent élevés. La prostatectomie radicale, principal traitement curatif du cancer de la prostate permet, en cas de cancer localisé et à risque faible, chez un patient ayant une espérance de vie supérieure à 10 ans, une réduction du risque relatif de mortalité d'environ 50%. Les Indications de la prostatectomie radicale, restent cependant Limitées dans notre contexte de travail et les conditions techniques pour sa réalisation font encore défaut dans la plupart des pays africains. La prostatectomie radicale est réalisée depuis 2004 à Dakar à l'hôpital général de grand Yoff. Dans ce travail nous allons étudier la place de la prostatectomie radicale dans la prise en charge du cancer de la prostate en Afrique.

WORK- SHOP

**HPV cervical
cancer network
in Francophone
Africa**

14h30–17h30

Thursday

21 November

Njouom, Richard

HPV GENOTYPE PREVALENCE IN CERVICAL SPECIMENS WITH KNOWN CYTOLOGY (CAMEROON)

Richard Njouom*¹; Valérie Ngono¹; Paul Jean Adrien Atangana²; Robert Banai¹; Josephine Fubis²; Jean Louis Essame Oyono²

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From January 2011 to August 2013, the Centre Pasteur of Cameroon have investigated High risk (HR) HPV DNA in cervical samples collected from 153 women (mean age 47.1 ± 11.8 years) with known cytology and analysed the degree of association of HPV genotype with cervical cytological abnormality. The study, conducted by using the new automated Abbott RealTime High Risk (HR) HPV, was principally aimed at providing some cross-sectional figures on the epidemiology of HPV in Cameroon.

The Abbott RealTime HR HPV is a qualitative real-time PCR test for detection of DNA from 14 high-risk human papillomavirus (HPV) types (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68) in cervical specimens. The test can also differentiate between HPV 16, HPV 18 and non-HPV 16/18 types in a single reaction. The cytology analysis of the 153 cervical specimens shows that 34 (22.2%) were normal cytology, 95 (62.1%) were ASCUS (atypical squamous cells of undetermined significance), 21 (13.7%) LSIL (low grade squamous intraepithelial lesions) and 3 (2.0%) HSIL (high grade squamous intraepithelial lesions). A total of 46 (30.1%) of the 153 samples screened were positive for HR HPV DNA. The proportion of positive HR HPV PCR was higher in LSIL (42.9%) and HSIL (66.7%) groups than normal cytology (23.5%) and ASCUS (28.4%) groups. This test permits to detect HR HPV in cervical smear with no cytological abnormalities. HR HPV genotypes implicated in abnormal cervical smears in Cameroon appear to be different from that of other areas of the world. Indeed, we have detected a high prevalence rate of non-HPV-16/18 (84.8%) and a low prevalence rate of HPV-16 (4.3%) and HPV-18 (10.9%).

Though not a true population-based survey, this study shows that the prevalence of HR HPV in women is high in Cameroon. As reported in a previous study in Cameroon, non-HPV-16/18 subtypes were more prevalent than the subtypes carried in the quadrivalent vaccine. Further studies are needed to assess whether the current

ABSTRACT INCOMPLETE/EXCEEDS LIMIT

POSTER 132

Nnodu, Obiageli

CAPACITY BUILDING IN ORTHOPAEDIC ONCOLOGY IN SOUTH-WEST NIGERIA

Saturday
23 November
2013

Obiageli Nnodu*¹; Samuel Eyesan²; Oluseyi Idowu³

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Objective UICC fosters knowledge, skills and technology transfer and education of professionals in cancer control. Our objective is to evaluate the impact of the skills UICC ICRET fellowships in orthopaedic oncology practice in South West Nigeria.

Methods We evaluated output of ICRET Fellows from the National Orthopaedic Hospital Lagos in terms of new services introduced, new trainings given, information disseminated and research output.

Results The fellowships resulted in enhanced capacity for radiological diagnosis of bone tumours, cheaper more cost effective preoperative evaluation of patients by fine needle aspiration cytology, and introduction of re-constructive tumour surgery. Resident doctors were exposed to enhanced training in orthopaedic oncology. Research output include 30 articles in international, regional and local peer journals with two acceptances and four newspaper/newsletters articles. Members of the team have made invited presentations at international, regional national local conference with a total of 10 international, 15 regional and 25 national selected peer reviewed abstracts. Sustainability has been achieved by training a young surgeon in orthopaedic oncology who has founded the Lagos Musculoskeletal Oncology Network (LAMON) and our production of a Manual of Orthopaedic Oncology in Resource Limited Settings for training.

Conclusion Our experience shows that transfer of skills and technology and education of professionals from developing countries through short periods of training in centres of excellence abroad is a sustainable model with high impact for global cancer control which also addresses the problem of brain drain.

WORK- SHOP

Nsonde Malanda, Judith PROBLÈMES DE PRISE EN CHARGE DES CANCERS DIGESTIFS PRIMITIFS AU CHU DE BRAZZAVILLE

Free
communication
of abstracts V
11h00–13h00
Sunday
24 November
2013

Judith Nsonde Malanda*¹; Stevy Makouanzi¹; Augustin Tozoula Bambara³
¹CHU /UNMG, Republic of Congo; ³CHU /UNMG, Burkina Faso

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Résumé Le registre des cancers de Brazzaville à enregistré 2697 nouveaux cas de cancer en 5 ans, 591 cas (21,9%) avaient une localisation primitive digestive. Dans une étude rétrospective allant du 1er Janvier 2005 au 31 Décembre 2009 nous avons rassemblés 138 dossiers concernant des patients suivis pour cancers digestifs primitifs dans le Service de Carcinologie et Radiothérapie du CHU de Brazzaville. La répartition était la suivante : 79 hommes (57,2%) et 59 femmes (42,8%) un sex ratio de 1,3 l'âge moyen de 51,33 ans (extrêmes de 19 - 96 ans), l'écart type de 14,9 ans. Le délai moyen de consultation était de 12,8 mois. Le cancer primitif du foie était la première localisation cancéreuse 58 cas (42%) suivis du colon-rectum 34 cas (27,6%), puis de l'estomac 20 cas (14,5%). Le stade de la maladie au moment du diagnostic était régional (n: 74 cas) 53,6% et métastatique (n: 44 cas) 31,8%. La confirmation histologique était obtenue pour 103 cas. L'adénocarcinome, a été le type histologique le plus rencontré suivi du carcinome hépatocellulaire. Etant donné le stade avancé au moment du diagnostic, le traitement était symptomatique pour le carcinome hépatocellulaire. Puis, 22 patients atteints de cancers colo rectaux ont bénéficié d'une héli colectomie en urgence avec une chimiothérapie adjuvante. La prise en charge était palliative pour les cancers de l'estomac, du pancréas et de l'œsophage en raison des difficultés du plateau technique, et d'accessibilité aux traitements aux traitements anti cancéreux. La survie globale à 6 mois était de 35%, à 12 mois de 24%, à 24 mois 8%, puis 4% à 36 mois après le diagnostic du cancer. La localisation rectale avait une survie de 30% à 36 mois. La meilleure prise en charge des cancers digestifs primitifs passe par la prévention du cancer primitif du foie avec la vaccination contre le virus de l'hépatite B. Puis par le dépistage des cancers colo-rectaux qui doit être couplé à une concertation pluridisciplinaire afin d'améliorer la survie de ces patients.

Saturday
23 November
2013

Fabien Ntaganda*¹

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Purpose The success of Tyrosine Kinase Inhibitors (TKI) in the treatment of Chronic Myeloid Leukemia (CML) patients has displaced bone marrow transplant, however requires a strict cytogenetic and molecular monitoring. I am discussing laboratory and therapy findings of 11 patients after one year of follow-up.

Patients and methods I analyzed retrospectively from November 2011 to November 2012, 11 patients (males = 8 females = 3) with a male to female ratio 2.6: 1. The median age is 33.6 years range (21–52). A data sheet was used to collect variables on demographic information and disease related parameters. BCR-ABL transcript levels and conventional karyotype were used to confirm the disease. Data were captured and analyzed using stata-11.

Results All the patients (100%) had the white blood cells over $100 \times 10^9/L$. Three patients (27.2%) had a hemoglobin (Hb) count of less than 9g/dl and the rest of patients (72.8%) had an Hb > 9. Again, the totality of our patients present at the hospital with a massive splenomegaly. Eight patients had molecular results with BCR-ABL transcript positive and three had a positive Ph-chromosome. After two months on TKI 10 patients (91%) showed hematological response with a complete normalization of blood parameters and the normalization of the spleen, one patient transform to an acute phase and demised. However, 18 months of cytogenetic and molecular follow up is recommended by European Leukemia Net (ELN) to conclude a complete molecular response.

Conclusion This study improves our knowledge on the demographic characteristic of CML patients in Rwanda and the therapeutic outcome of the patients on TKI. Our patients tend to develop the disease at early age compared to the western population.

POSTER 134

Thursday
21 November
2013

Nwabukwu, Ify Anne

AFRICAN WOMEN'S CANCER AWARENESS ASSOCIATION: A MODEL TO BREAK THE SILENCE BARRIER

Ify Anne Nwabukwu*¹; Vanessa Sheppard²; Fikru Hirpa²; Yvonne Jennings²; Alejandra Hurtado de Mendoza²

¹African Women's Cancer Awareness Association, United States; ²Georgetown University, United States

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Background The African Women's Cancer Awareness Association (AWCAA) was founded in 2004 by two friends, Miss Ify Anne Nwabukwu and Chinwe Otue-Agugua, M.D. They became aware of the access to care barriers that African immigrants face when Miss Ify's mother was diagnosed with breast cancer without having insurance. To meet the African immigrant needs, AWCAA provides culturally and linguistically appropriate services ranging from outreach public education to survivorship care. Central to the AWCAA awareness, prevention, and control model is cancer navigation.

Methods A case report format is used to describe the rationale for the organization and organizational approach. Intense cancer navigation was tracked for 24 months and provided to 70 women. Descriptive statistics are used to summarize sample size characteristics and key outcomes.

Results Seventy women from about 20 African countries received intensive navigation services that covered Maryland (76%), District of Columbia (18%), and Virginia (6%). Recipients' age ranged from 15–69 ($M=47.0\pm 11.1$). The majority completed some college or above education (60%), were single (56%) and employed (54%). Most women who were ≥ 40 (69%) had a mammogram and it was higher among women with higher education (80% vs. 46%; $p=.067$).

Conclusion Since inception AWCAA has outreached to over 9,000 women and 1,000 men both in the US (40%) and abroad (60%) and provided intensive cancer navigation services to 100 women each year. AWCAA has obtained three research grants, seven service grants, and eighteen awards. The successful partnership with academic organizations has demonstrated the feasibility and effectiveness of community-based participatory research.

Nwogu, Chukwumere
PROMOTING CANCER CONTROL WORKSHOPS IN RESOURCE LIMITED ENVIRONMENTS: EXPERIENCES IN LAGOS, NIGERIA

Saturday
23 November
2013

Chukwumere Nwogu*¹; Martin Mahoney¹; Grace Dy¹; Saby George¹; Abiodun Popoola²; Arthur Michalek¹
¹Roswell Park Cancer Institute, United States; ²Lagos State University Teaching Hospital, Nigeria

Correspondence Nwogu, Chukwumere
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Objectives In resource limited nations, cancer control is often a low priority issue. Prevention, screening, diagnosis and treatment of cancer are thus very challenging. Training and education are vital components of efforts to tackle this problem. International cancer control workshops can aid health professionals in prioritizing these topics.

Methods A 3-day cancer control workshop was conducted at the Lagos State University Teaching Hospital (LASUTH) in 2013. The curriculum included didactic lectures, panel discussions and interactive sessions on local cancer statistics; feasible preventive strategies; cancer registries; screening and diagnostic options; treatment with limited resources (chemotherapy, radiotherapy, surgery and palliative care); and several site-specific (breast, lung, cervical, prostate, colon) topics. Pre and post-workshop questionnaires were filled out by participants.

Results 86% of the 50 workshop participants completed at least one questionnaire. They were mainly nurses and physicians (89% of responders). 40% had >25 years of practice experience. The greatest local needs identified were professional education (65%) and increasing public cancer awareness (63%). The greatest interest for future programs was on research collaborations (70%). The immediate impact of the workshop was the commencement of monthly tumor board conferences and a review of the current cancer registry data.

Conclusions Capacity building is critical for effective cancer control. Conducting collaborative workshops appears to represent a cost-effective means of launching and invigorating local programs. There is great interest in the medical community for on-going education and research addressing the anticipated cancer epidemic on the African continent.

WORK- SHOP

Free
communication
of abstracts V
11h00–13h00
Sunday
24 November
2013

Nyongesa, Paul

DEVELOPMENT OF INNOVATIVE SUB-SPECIALTY TRAINING IN GYNECOLOGIC ONCOLOGY FOR LOW-INCOME COUNTRIES

Paul Nyongesa*¹; Barry Rosen²; Astrid deb Christopherson³;
Aaron Yarmoschuk²; Hillary Mabeya¹; Mishra Swarup¹

¹Moi University, Kenya; ²University of Toronto, Canada; ³University of Toronto
and Moi University, Kenya

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Introduction The burden of female genital tract malignancies in Kenya is very high. More women die from cervical cancer than any other cancer. The complexity required for the management of women with gynecological malignancies is beyond the skill set of current general obstetricians and gynecologists trained in Kenya. In response to this challenge, the Reproductive Health (RH) Department of Moi University developed a curriculum (similar to a fellowship in North America) for training in Gynecologic Oncologists in Kenya.

Methods Following a needs assessment and a stakeholders meeting that included physicians and consumers the RH department decided to initiate gynecologic oncology fellowship training in Kenya. Drawing on the success of Academic Model Providing Access to Healthcare (AMPATH), and its North American collaborations a two year curriculum in gynecologic oncology was developed and approved at Moi University.

Results The program is a 2-year Master of Science in Gynecologic Oncology and has enrolled two candidates. The components of the curriculum include in surgery, medical and radiation oncology, palliative care, and research. Six North American Gynecologic Oncologists travel to Kenya to provide training and mentorship. When there is no visiting faculty in Kenya there is a weekly Skype call to review cases and to discuss relevant gynecologic oncology topics.

Conclusion It is possible to develop and implement a sub-specialist training in a low resource country without contributing to local brain drain in the process. This curriculum has strengthened the collaboration between partner institutions and has provided an opportunity to develop sustainable comprehensive gynecologic oncology care for women in Western Kenya.

Sunday
24 November
2013

Millicent Obajimi*¹; Adenike Adeniji-Sofoluwe²; Temitope Soyemi³;
Abideen Oluwasola⁴; Adewunmi Adeoye⁴; Babatunde Adedokun⁵

¹University of Ibadan, Nigeria; ²Department of Radiology, University of Ibadan, Nigeria; ³Department of Radiology, University College Hospital, Nigeria; ⁴Department of Pathology, University of Ibadan, Nigeria; ⁵Department of Epidemiology, University of Ibadan, Nigeria

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Objectives Ultrasound guided Core or Trucut Biopsy is a new concept in breast cancer diagnosis and treatment especially in a developing country like ours. It is based on a less invasive strategy with a multidisciplinary approach in a specialized breast unit. Trucut biopsy is replacing diagnostic surgical biopsies in many Institutions. This is a premier report of ultrasound-guided core biopsy of the breast in Nigeria. This study will evaluate the sampling adequacy and diagnostic accuracy of sonomammographic guided procedure in evaluating the nature of a breast lump using histopathology as the gold standard. It will also report the histo-pathological patterns of breast lumps in the patients studied. The need for a multidisciplinary team is also highlighted.

Method This is a prospective study of 40 women with clinical suspicion of breast cancer and/or with Bi-rads (Breast Imaging Reporting and Data System) III-V referred for breast imaging at the Department of Radiology of the University College Hospital, Ibadan The study was carried using a manual Core Biopsy BARD Gun and a Logiq P5 ultrasound unit with a high frequency linear transducer. Consent was obtained from all the participants before imaging and biopsy.

Results A total of 40 biopsies were performed on palpable breast masses, 34 (85%) had satisfactory yield of diagnostic tissue. Histopathology confirmed cancer in 24(60%) while 10(25%) were benign. Eighty-eight per cent of malignancies were reported as invasive ductal carcinoma. Sensitivity, specificity and accuracy of imaging procedure in detecting malignancy was found to be 100, 80 and 94.1 per cent respectively.

Conclusion Ultrasound-guided biopsy for breast lesion assessment in our centre shows high accuracy. Its reliability and sensitivity is also shown in our study. Its routine use to decrease the total cost of management of breast cancer in all low resource countries is recommended.

POSTER 137

O'Brien, Megan CHECK YOUR PAIN AT THE DOOR! THE PAIN FREE HOSPITAL INITIATIVE

Friday
22 November
2013

Megan O'Brien*
American Cancer Society, United States

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Objective Thirty-nine countries in Africa treat less than 5% of deaths in moderate or severe pain despite the existence of inexpensive, plentiful, safe, and effective medicines that the World Health Organization considers essential. The Pain-Free Hospital Initiative was developed by the American Cancer Society's Treat the Pain program to improve diagnosis and treatment of pain in a hospital setting.

Methods The Pain-Free Hospital Initiative is a one-year hospital-wide quality improvement initiative to integrate pain treatment into service delivery by providing education for patients and staff, raising motivation and awareness, documenting pain levels, improving medicine supply, and communicating impact. The Initiative is a low-cost intervention designed to demonstrate effectiveness and create local champions for pain relief, targeting hospitals where pain relief is available, but remains under-prescribed.

Results Three cancer centers in India launched the initiative in 2013. The first one, Malabar Cancer Centre, has already seen a 65% decrease in average pain scores in just three months.

Conclusions Initial data from these hospitals suggest that the Pain-Free Hospital Initiative may be an effective means to improve pain treatment in cancer centers or regional referral hospitals in Africa.

POSTER 138

Thursday
21 November
2013

O'Brien, Megan

INNOVATIONS IN CLINICAL TRAINING: USING E-LEARNING TO RAPIDLY DIFFUSE NEW SKILLS AND INFORMATION IN CANCER CARE AFRICA

Megan O'Brien*
American Cancer Society, United States

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Objective Cancer care in Africa is advancing rapidly, but outdated methods of training and updating clinical skills limits the diffusion of new skills and information among health workers. Traditional classroom-based trainings are expensive, difficult to scale up, and pull limited human resources out of an already strained healthcare system.

Methods The American Cancer Society's Treat the Pain program has developed an e-learning pilot project in Uganda to measure the effectiveness and cost of e-learning to improve health worker knowledge and skills to diagnose and treat moderate to severe pain.

Results This session will demonstrate the potential of e-learning to improve clinical training while reducing cost and highlight different how different models incorporate e-learning as well as shorter classroom engagement, mentoring, supportive supervision, clinical placements, and partnerships with degree-granting programs. The use of technical elements such as certificates, self-assessments, quizzes, role-plays and videos offer tools to enhance the learning experience.

Conclusions E-learning has the potential to drastically improve the diffusing of new skills and information in Africa and will be a prerequisite to scaling up high-quality cancer care in the region.

WORK- SHOP

Odedina, Folakemi

ABCS OF CANCER ADVOCACY PLAN

Folakemi Odedina*¹; Kwanele Asante-Shongwe²; Emmanuel Kandusi³

¹University of Florida, United States; ²BreastSens, South Africa;

³Tanzania 50 Plus Campaign, Tanzania

**Cancer
advocacy**

masters training

08h30–17h30

Wednesday

20 November

2013

Correspondence Odedina, Folakemi

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Although there is significant evidence of a cancer epidemic in Africa, there is limited awareness about cancer in most African countries. This presentation will provide an overview of recent efforts on cancer advocacy in Africa, including the results of a SWOT analysis conducted for the cancer advocacy workshop and the guidelines developed by cancer advocates on best practices for cancer advocacy in Africa.

One of the outcomes of these efforts is the African Cancer Advocates Consortium (ACAC) founded by cancer advocates in Africa to, “Make Cancer a Top Priority in Africa”. While we have started the work to strengthen cancer advocacy in Africa, we still have a long way to go. Our goal of making cancer a priority in Africa can mainly be achieved by:

1. increasing the manpower for cancer advocacy through education and training; and
2. strengthening the network of cancer advocates across the continent.

WORK- SHOP

**National
cancer control
plans**
11h00–13h00
Friday
22 November
2013

Odedina, Folakemi

THE AFRICAN CONTINENT CANCER PLAN 2013–2017

Folakemi Odedina*¹; Isaac Adewole²; Lynette Denny³

¹University of Florida, United States; ²AORTIC, Nigeria; ³AORTIC, South Africa

Correspondence Odedina, Folakemi

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The burden of cancer is rising in Africa, in addition to current heavy burden of communicable, and other non-cancer related non-communicable diseases. Conquering cancer in Africa will require a comprehensive collaborative approach with cancer clinicians, scientists, patients, advocates, policy makers and community leaders working hand-in-hand at the local, state, national, and continent levels with the primary mission: To reduce the number of deaths from cancer and improve the quality of life of cancer patients, survivors and caregivers.

Unfortunately, less than 40% of African countries have a credible cancer control policy and program. The African Organization for Research and Training in Cancer (AORTIC) decided to create an African Cancer Plan to provide cost-effective strategies that can be employed throughout the continent to fight cancer. Based on the African proverb that “It takes a village to raise a child”, the Cancer Plan provides specific strategies that can be used by individuals, employers, organizations and policy-makers to fight cancer. In addition, we have provided overarching strategies to address cancer in Africa and targeted 5-year plan for prostate, breast, cervix, lung and liver cancers. In developing this Cancer Plan, our primary goal is to decrease cancer incidence and mortality in Africa. This goal can only be achieved by stakeholders and dedicated individuals to lead and implement the strategies outlined in this plan. If you are interested in partnering with AORTIC to reduce the burden of cancer in Africa, please send an email to info@aortic-africa.org.

WORK- SHOP

Odedina, Folakemi

PATIENT ADVOCATE'S ROLE IN ENHANCING CARE OF THE WHOLE PATIENT

AORTIC-IPOS

Academy

14h30–17h30

Wednesday

20 November

2013

Folakemi Odedina*¹; Belmira Rodrigues²

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According to the World Health Organization, advocacy is the “effort to influence people, primarily decision-makers, to create change, which in the context of cancer control results in comprehensive policies and effective program implementation, through various forms of persuasive communication.” Based on this definition, cancer advocacy is currently limited and weak in Africa. Active cancer advocacy is necessary to turn the tide on cancer crisis and make cancer issues a high priority in Africa. The good news is that there are dedicated African advocates who passionately employ innovative ways to address cancer in Africa. This presentation will focus on describing the diverse roles of patient advocates in enhancing the care of cancer patients through: Political Advocacy, Education Advocacy, Research Advocacy, Fundraising Advocacy, Support Advocacy and Community Outreach Advocacy. Six case studies from Africa will be discussed, including the innovative advocacy practices of:

1. Tanzania Tobacco Control Forum (TTCF), Tanzania;
2. Ethiopian Public Health Association, Ethiopia;
3. Sebecclly Cancer Care and Support Centre, Lagos, Nigeria;
4. Crusaders Club Ministry, Sierra Leone;
5. Uganda Women's Cancer Support Organisation (UWOCASO), Uganda; and
6. Breast Cancer Foundation of Egypt (BCFE), Egypt.

Successful cancer advocates in Africa can best serve as learning sources and role models for advocacy in Africa.

WORK- SHOP

Odedina, Folakemi

WELCOME AND OPENING REMARKS FOR 1ST CANCER ADVOCACY MASTER TRAINER PROGRAM

**Cancer
advocacy
masters training**
08h30–17h30
Wednesday
20 November
2013

Folakemi Odedina*
University of Florida, United States

Correspondence Odedina, Folakemi
Email: fodedina@cop.ufl.edu

The 1st Cancer Advocacy Master Trainer Program will train selected cancer advocates in the following six areas of cancer advocacy: Political, Support, Fundraising, Community Outreach, Education, and Research. Advocates will go through a one-year training experience with a mentor, including a one-day didactic training program on November 20, 2013 and one-day experiential “teach back” training session on November 21, 2013. AORTIC Cancer Advocacy Master Trainers will be responsible for training a minimum of 100 African advocates within two years. Specifically, AORTIC expects each Master Trainer to provide a minimum of five training programs to up to 100 advocates within the continent prior to the next AORTIC conference in 2015. Master Trainers are expected to inform AORTIC Head Quarters (info@aortic-africa.org) and University of Florida (AorticACAC@gmail.com) of all training activities, including the names, contact information, organizations and native countries of all participants.

WORK- SHOP

Odedina, Folakemi

WELCOME REMARKS FOR GENERAL CANCER ADVOCACY WORKSHOP

Folakemi Odedina*
University of Florida, United States

**Cancer
advocacy
workshop &
expo**
08h30–17h30
Thursday
21 November

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Our long-term goal is to make cancer a top priority in Africa. In pursuit of our goal, the objective of this workshop is to train cancer advocates who will be empowered to engage their communities, develop, and implement cancer health and survivorship programs. Utilizing an innovative framework for the workshop, we will provide participants with the skills to:

1. mobilize the resources within African countries for health promotion, prevention, and survivorship strategies;
2. partner with key stakeholders to accomplish targeted objectives;
3. raise funds to support advocacy activities; and
4. develop and successfully organize community-centered programs.

Saturday
23 November
2013

Stella Odedina*¹; Celia Anetor*²; Babatunde Adedokun³

¹Healthy Life for all Foundation, Nigeria; ²Healthy Life for All Foundation, Nigeria; ³University of Ibadan, Nigeria

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The incidence of pregnancy-associated breast cancer is expected to rise as a result of the trend of late age at first pregnancy and rise in the incidence of breast cancer in Nigerian women. A study conducted in western Nigeria reported that about 10.9% of women practice breast self-examination. However, good breast screening practices had been proven to be effective for early detection of breast cancer.

This study would determine the knowledge of pregnancy associated breast cancer; breast cancer and breast screening practices among women attending antenatal/post natal clinics at the university college hospital, Ibadan.

Study is a descriptive cross sectional survey of about three hundred and fifty pregnant and lactating women coming to the university college hospital for antenatal and postnatal clinics. In-depth interview and a structured questionnaire would be administered by trained interviewers.

Outcome of this study would enable us develop an educational package which would be useful in improving screening practices during pregnancy and lactation. From this study we hope to conduct a larger study that would target molecular prevention of cancer during pregnancy and during lactation. Intervention is hoped to help with early detection of breast lumps and consequently with early diagnosis of breast cancer.

The study result would help in the advocacy for federal government policies that would improve early detection of breast cancer among Nigerian women. Furthermore, study would help develop specific training programmes for health care workers thereby improving health care delivery and further analytical studies could also be explored.

WORK- SHOP

Odetunde, Abayomi

IMMUNOHISTOCHEMISTRY: A VITAL TOOL IN THE MANAGEMENT OF CANCERS IN NIGERIA

**Free
communication
of abstracts II**
14h30–17h30
Friday
22 November
2013

Abayomi Odetunde*¹; Olayiwola Oluwasola*²; Ebili Henry³;
Chinedum Babalola²; Temidayo Ogundiran²; Olufunmilayo Olopade⁴;
Christopher Olopade⁴

¹Institute for Advanced Medical Research and Training, Nigeria; ²University of Ibadan, Nigeria; ³University College Hospital, Ibadan, Nigeria; ⁴University of Chicago, United States

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Background/objective Provision of quality immunohistochemical services for the diagnosis and management of cancer in Nigeria is of great importance. The immunohistochemistry (IHC) laboratory was established in 2005 at the Institute for Advanced Medical Research and Training (IAMRAT), College of Medicine, University of Ibadan, Nigeria. It was the first IHC laboratory in Sub-Saharan Africa (excluding South Africa) to assay for Estrogen (ER), Progesterone (PR) and Her2/Neu. The aim of this report is to provide progress attained so far in the use of IHC for cancer management in Nigeria.

Method The records of formalin-fixed, paraffin-embedded cancer tissue samples received at IAMRAT between 2005 and 2012 for IHC analysis on breast and non-breast cancer cases were collated. The repertoire of antibodies in the laboratory has increasingly expanded over the years from ER, PR, HER2/neu in 2005 to a total of 19 antibodies in 2012. A total of 1581 samples were received from different institutions across Nigeria for immunohistochemical analysis on breast and other cancer cases.

Result Of the total samples received, 1177 (74.5%) were breast cancer and 404 (25.5%) were other cancer cases including B and T cell NonHodgkin's lymphoma, Neuroblastoma, Burkitt lymphoma, Rhabdomyosarcoma, malignant peripheral nerve sheath tumour, epithelial-sarcoma, angiotropic large-cell lymphoma amongst others. Detailed breakdown of findings will be discussed at the conference.

Conclusion The immunohistochemistry laboratory has made tremendous progress in the provision of prompt and quality immunohistochemistry service for breast and other cancers in Nigeria. Pathologists, surgeons, clinicians and researchers now send sample from different institutions in the country.

Saturday
23 November
2013

Vincent Odigie*

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Introduction Unlike in the USA breast cancer is a burden of childbearing mothers who are predominantly young, parous, PREMENOPAUSAL, poor and ignorant of the disease resulting in significant morbidity–foetal loss, depressive symptoms or mortality.

Objective Highlight the trend of breast cancer in pregnancy and lactation (lactational period defined as two years post-partum). Highlight psychosocial attitude and outcome of pregnancy related breast cancer amongst African mothers in Northern Nigeria.

Method and patients It is a longitudinal, prospective study of patients <50years with breast cancer during pregnancy or lactation (Jan 1996–Jan 2013).

Results There were 840 married women with breast cancer. 39 pts (4.6%) were pregnant. Clinical features were similar to those of non-pregnant African mothers with breast cancer except rapidity of growth of tumour during pregnancy/lactation. Parity distribution: 31 pts (79.5%) multiparous, 8 pts (20.5%) uniparous. Trimester distribution: 31 pts (79.5%) first or second trimester, 2 pts (5.1%) had lactational breast cancer. Mother's attitude to pregnancy: 2 out of every 3 were willing/ carried pregnancy to term while (25.6%), 1 in 4 wanted pregnancy terminated. OUTCOME OF PREGNANCY: Foetal loss 23 pts (59.0%), Maternal death 10 pts (25.6%), Live birth 16 pts (41.0%) Puerperal depression/psychosis, 11 pts (28.2%). There is a need for early detection/diagnosis of African mothers at risk of breast cancer.

WORK- SHOP

Odigie, Vincent

DOCTOR–PATIENT COMMUNICATION BY MOBILE CELL PHONE IN BREAST CANCER CARE

AORTIC-IPOS

Academy

11h00–13h00

Wednesday

20 November

2013

Vincent Odigie*¹; Osaigbovo Uhunwagho²; Lazarus MD Yusufu³;
David Dawotola⁴; Ahmad Mai³; Peter Abur³; Loretta Odigie⁵

¹Ahmadou Bello University Teaching Hospital, Nigeria; ²Irrua Specialist Teaching
Hospital, Nigeria; ³Dept of Surgery Ahmadou Bello University Zaria, Nigeria;

⁴Dept of Radiotherapy, Ahmadou Bello University Zaria, Nigeria;

⁵Federal Medical Centre Asaba, Nigeria

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Background In developing countries patients poor education, poverty/limited resources, poor road network and underdeveloped communication infrastructure result in cancer patients inability to access a physician/clinic, easily/promptly resulting in patients unmet needs for information, follow up visits and poor/absent psycho- oncological support. Mobile phone has suddenly provided a new inexpensive, easily available means of communication improving cancer care even for those in remote areas/villages.

Aim We studied the use/value/effectiveness of mobile phone communication in cancer care in Nigeria.

Method Multicenter longitudinal study. Authors (clinical oncologists) gave their mobile phone numbers to consenting breast cancer patients on discharge. Patients were advised to feel free/discuss their medicare/seek advice by phone anytime with authors. Calls/Patients were entered in data file/proforma. Exit from study 36 months.

Results 615 patients M: F = 1: 43, Age Range 18–79 years. 58.4% No formal education, 9.5% graduate education. 2 of 3 lived > 200kms from hospital. 52% rented phone, 1:4 owned/borrowed. > 86.7% rated phone use very useful, obtained information, keep/reschedule appointments and “MORALE BOOSTER”. Three of four women married noted that oncologists speaking with their husbands facilitated their follow-up/treatments. 97.6% noted they had not been forgotten by their doctors/were being taken care of at home. 18.3% calls were rated emergency by authors. ONLY 16.9% (non-intervention group) kept their appointments/follow up at 36 months compared to 97.4%–intervention group.

Conclusion Low resource countries faced with the burden of cancer care, poor psycho-oncological support can cash on the mobile phone technology. It is cheap, ubiquitous, useful helpline and outreach wide. It obviates multiple hospital visitation/transportation in multidisciplinary breast cancer care and should be encouraged in low resource settings.

WORK- SHOP

Odunsi, Kunle

CANCER VACCINE DEVELOPMENT FOR OVARIAN CANCER: TRIALS AND TRIBULATIONS

**Joint AORTIC-
ASCO**

symposium

14h30–17h30

Saturday

23 November

2013

Kunle Odunsi*

Roswell Park Cancer Institute, United States

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The development of strategies to enhance the potential of tumor antigen-specific CD8+ T and CD4+ T cells is urgently needed for extending remission rates in ovarian cancer patients. In this regard, cancer-testis antigens, a unique class of antigens that demonstrate high levels of expression in adult male germ cells but generally not in other normal adult tissues and aberrant expression in a variable proportion of a wide range of different cancer types, are promising candidates for immunotherapy. Among cancer-testis antigens, NY-ESO-1 is one of the most immunogenic tumor antigens described so far.

Consequently, we have chosen NY-ESO-1 as the prototypic tumor antigen for vaccine development in ovarian cancer patients. In a series of clinical trials using NY-ESO-1 peptides, protein, heterologous prime-boost recombinant vaccinia/recombinant fowlpox-NY-ESO-1, recombinant canarypox expressing NY-ESO-1 and a triad of co-stimulatory molecules (B7.1, ICAM-1 and LFA-3, TRICOM), we consistently demonstrated induction of integrated antibody, CD8+ and CD4+ T cell responses. There was indication of improved overall survival in patients with Ab, CD4 and CD8 T cell responses. However, we found that ovarian cancer may escape from immune attack via (i) tumor antigen loss at the time of recurrence (ii) up regulation of inhibitory co-receptors on tumor specific T cells and (iii) lack of generation of memory cells.

We will present two of our approaches aimed at overcoming these immune escape mechanisms. First, as NY-ESO-1 is regulated by DNA methylation, we reasoned that DNMT inhibitors may augment NY-ESO-1 vaccine therapy. We tested this hypothesis in a phase I trial of decitabine, in addition to NY-ESO-1 vaccine and doxil chemotherapy. Second, based on our unexpected observation indicating a role for mTOR in regulating T cell fate, we tested the ability of a variety of rapamycin treatment regimens to regulate vaccine induced CD8+ T cell memory response in ovarian cancer.

WORK- SHOP

Free
communication
of abstracts V
11h00–13h00
Sunday
24 November
2013

Ogo, Chidiebere

A FIVE YEAR CLINICO-PATHOLOGICAL STUDY OF PROSTATE CANCER IN ABEOKUTA, SOUTH WESTERN NIGERIA

Chidiebere Ogo*¹; Titi Akinremi*²; Ayodeji Olutunde²; Adebisi Ogunjimi³;
Olawale Fadimu²; Dike Obalum⁴; Ebenezer Nkom²

¹Federal Medical Centre, Nigeria; ²Federal Medical Centre, Abeokuta, Nigeria;

³Lagos University Teaching Hospital, Nigeria; ⁴State House Clinic, Abuja,
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Objective Prostate Cancer is most common cancer and leading cause of morbidity and mortality among Nigerian men. To present our study of PCa among Nigeria men To study clinical as well as pathological characteristics of PCa in our environment.

Method This study covers the period between Dec 2007 and Dec 2012. All consecutive patients with histologically diagnosed PCa were included in the study The clinical data, age, mode of presentation, PSA value, DRE findings and histological characteristics were entered.

Results There were 125 cases of PCa included in the study. Average age: 70.12 years, Median age: 70 years, Modal age: 70 years with the peak decade being the 7th. Most common presentation being LUTS and low back pain being most significant and about 92% having abnormal DRE findings. Most patients had PSA value greater than 20ng/ml with the lowest being 2.7ng/ml. Adenocarcinoma was the only histological pattern seen with Gleason Score 7 predominant. All patients except one had advanced disease with 60% being metastatic. All patients had hormone ablation therapy with orchidectomy predominating except one early disease that had brachytherapy in a facility in USA.

Conclusion The pattern of presentation has remained unchanged and still follow known trends, rising incidence and late disease. All but one had late disease with hormone ablation the most common therapy applied. There is need for a concerted effort by all to ensure adequate awareness, screening and early detection of PCa in our environment.

WORK- SHOP

Ogun, Gabriel O

MOLECULAR BIOMARKERS FOR PROGNOSTICATION IN NASOPHARYNGEAL CARCINOMAS IN NIGERIANS

**BIG CAT
grants II**

11h00–13h00

Friday

22 November

2013

Gabriel O Ogun*

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Nasopharyngeal Carcinoma (NPC) is common in the relative young adults in Nigeria. Patients with NPC in our practice setting usually present at relatively late stages (TNM stage III and IV). Therefore an early diagnosis with aggressive therapy can help improve the 5-year overall survival. Recent studies have shown that specific biomarkers in NPC have proven to be important in predicting the prognosis of the disease. These biomarkers can also serve for disease monitoring and novel molecular targeting for therapeutic purposes. There are indications that some of these markers confer good prognosis. These biomarkers can help in stratification of patients into treatment options and monitoring. The different proven biomarkers identified from previous studies and representing different pathologic pathways in the pathogenesis and progression of NPC will be tested.

In this two-year multi-centre prospective study, tumour tissue obtained from patients with NPC will be tested for some of these biomarkers. The pathways and the pathway molecules to be tested include: Cell Cycle: Cyclin D1, Aurora A, p27, Ki-67; Migration and Invasion: N-Cadherin, nm23-H1, E-Cadherin; Tumour Microenvironment: MMP2; TIMP2, VEGF, CD34, CD8 and CD45RO; Apoptosis and Autophagy: Bcl-2, Pontin, Belicin 1; Epigenetic related molecule EZH2 and EBV related molecule LMP1. These biomarkers will be tested using IHC on FFPE tumour tissue.

The preliminary results from the first four months of this study will be discussed.

Ogungbade, Idiat

**LEVEL OF AWARENESS OF MAMMOGRAPHY AMONG WOMEN
ATTENDING OUTPATIENT CLINICS IN A TEACHING HOSPITAL IN
IBADAN, SOUTH-WEST NIGERIA**

Thursday
21 November
2013

Idiat Ogungbade*¹; Millicent Obajimi²; Ikeoluwa Ajayi²; Abideen Oluwasola²; Babatunde Adedokun²; Adenike Adeniji-Sofoluwe²

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Background Mammography has been used in developed countries with considerable success but very little is known about this imaging modality in low resource settings. This study examined the level of awareness of mammography and determined factors influencing the level of awareness.

Methods We conducted a hospital based cross sectional study to investigate the level of awareness of mammography among 818 randomly selected women attending the General Outpatient clinics (GOP) of the University College Hospital (UCH), Ibadan, Nigeria. Independent predictors of level of awareness of mammography were identified using multiple logistic regression analysis.

Results The proportion of women who ever heard of mammography was 5%, and they demonstrated poor knowledge of the procedure. Those with primary or secondary levels of education were about three times less likely to be aware of mammography when compared with those with tertiary level of education (OR = 0.3, 95% CI, 0.12–0.73). Also, participation in community breast cancer prevention activities (OR = 3.4, 95% CI, 1.39–8.36), and previous clinical breast examination (OR = 2.34, 95% CI, 1.10–4.96) independently predicted mammography awareness. Newspapers and magazines appeared to be the most important sources of information about mammography screening.

Conclusion The level of awareness of mammography is poor among women attending outpatient clinics in the studied population. Interventions promoting awareness of this screening procedure should give particular attention to the illiterate and older women while clinicians performing breast examinations should utilize the opportunity to inform women about the mammography procedure. Promotion of educational articles on breast cancer and its screening methods via media remains vital for the literate.

WORK- SHOP

Ogunnorin, B Olutoye

ASSESSMENT OF CHEMORADIATION THERAPY FOR SOFT TISSUE SARCOMAS

**Free
communication
of abstracts IV**
14h30–17h30
Saturday
23 November
2013

B Olutoye Ogunnorin*¹; Adeniyi Adenipekun¹; Theresa Elumelu-Kupoluyi¹; Ayorinde Folasire¹; Oladapo Campbell¹; Olasimbo Ige²

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Introduction Soft tissue sarcomas (STS) are comparatively rare malignancies arising from tissues derived embryologically from the mesoderm. These tumours differ anatomically and histologically making comparison a challenge. Incidence of STS has been on the increase in recent years. Surgical excision with postoperative chemotherapy and radiation therapy has been the modalities of treatment. However, there have been varying chemotherapy combinations and radiation doses applied either alone or as a combination.

Objective To ascertain the outcome of patients with soft tissue sarcomas treated with chemoradiation therapy.

Methodology 276 patients histologically diagnosed of various soft tissue sarcomas were studied. Data extraction form was used to obtain information from their radiotherapy treatment records and case files. End point of the study was treatment outcome as indicated by tumour regression.

Results Most patients presented with stage III–89(32.2%) and stage IV–77(27.9%) diseases. Rhabdomyosarcoma 89 (32.2%) was the most common histological type. Tumour regression was significantly higher among patients who had Vincristine, ADRIAMYCIN, Cyclophosphamide and Dacarbazine (VAC-D) chemotherapy combination (81.0%).The proportion of patients that received radiotherapy with doses greater than 41Gy and for more than 5 weeks had tumor regression significantly higher than patients who had less than 41Gy and whose treatment lasted less than 5 weeks (58.8% vs. 37.5%, $P = 0.044$).Chemoradiation therapy gave increased side-effects compared with when either one is used alone.

Conclusion VAC-D combination given over 5-6 courses with radiation doses greater than 41Gy over 5 weeks were associated with higher rates of tumor regression.

POSTER 142

Saturday
23 November
2013

Ohaeri, Beatrice

IMPACT OF PSYCHO-SOCIAL NURSING INTERVENTIONS ON QUALITY OF LIFE OF BREAST CANCER CLINIC ATTENDEES IN A NIGERIAN TEACHING HOSPITAL

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Objectives The diagnosis of breast cancer prompts an array of questions and fears, which predispose to psychosocial problems, thereby affecting their quality of life (qol). Few studies have assessed impact of psychosocial interventions on breast cancer clients in Nigeria. We therefore assessed the impact of psycho-educational and emotional interventions on breast cancer clinic attendees.

Method A quasi-experimental design was used to assess the impact of informational and emotional interventions on 57 breast cancer clinic attendees using the following instruments: the WHOQol-Bref and General Health Questionnaire (GHQ-12). The experimental group 27 received the psycho-educational programme in two stages after the post- intervention data were collected. Thereafter, the emotional intervention, a guided peer group sharing, was delivered for two weeks, following which second post-intervention data were obtained and a third at six weeks. The control group received the routine nursing care and were assessed twice.

Results Providing informational intervention significantly improved most domains of qol (physical, psychological, independence, and environmental) ($p < 0.05$) in the experimental group. For GHQ-12 score, the experimental group had higher score (worse psychopathological state) at baseline, than at post-term with a significant reduction ($p < 0.05$). The qol domains and GHQ-12 scores for the control group were unchanged. Emotional intervention only had significant impact on social relations and independence domains of qol.

Conclusion Informational intervention predominantly improved qol of the clients, while emotional intervention enhanced qol in few domains. It is recommended that health care policy makers should integrate both them into nursing care of breast cancer clients.

Saturday
23 November
2013

Ahmadu Ozia Tessa*; Dawotola David; Adamu Abdullahi
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Objective To describe the pattern of clinical presentation of metastases in breast cancer patients between January 2002 and December 2011.

Methods This was a ten year descriptive retrospective study carried out at the Ahmadu Bello University Teaching Hospital, Zaria, North Western Nigeria. Clinical records of histologically confirmed breast cancer patients were reviewed. Relevant data regarding evidence of metastases, both clinical and radiological, were extracted and entered into a pro-forma. Data analysis was done using SPSS version 17. Chicago, IL, USA and presented in form of charts and tables.

Results There were 771 breast cancer patients out of which three hundred and twenty three (41.8%) had metastases either at presentation or in the course of treatment and follow up. Mean age of patients was 44.6 years; 84.5% presented with advanced disease (stages iii and iv). Invasive ductal carcinoma was the most common histology. Mean time interval from diagnosis to occurrence of distant metastases for stages i, ii and iii were 48, 32 and 27.1 months respectively. Forty six percent of patients had multiple sites of distant metastases, the lung being the most common followed by the bone, liver and brain. Regional lymph node metastases were seen in 71.2% of patients at presentation. The most common treatment modality used was combination chemotherapy. Treatment compliance was poor. Only sixty-one patients were alive after one year of detection of metastases.

Conclusion Breast cancer in Northern Nigeria affects young women in the reproductive age with majority presenting with advanced disease. Clinicopathological features show a highly aggressive disease with poor differentiation and multiple sites of metastases. There is the need for education and increase awareness of the disease among women and early diagnosis to improve treatment outcome.

POSTER
144

Ojukwu, John C

**SENTINEL LYMPH NODE BIOOPSY IN A DEVELOPING COUNTRY:
A 5-YEAR REVIEW AND FOLLOW UP**

John C Ojukwu*

Minimal Invasive Surgery & Surgical Oncology Unit, AVLSC Medical Centre,
Nigeria

Thursday
21 November
2013

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Objective To review the workability of sentinel lymph node biopsy for early breast cancer in a developing country and follow up for five years to ascertain usefulness.

Methods Preoperative ultrasound and mammograms were used for diagnosis and all patients were stages O, I, IIa . Blue dye was the sole agent used and haematoxylin and eosin stain preparations were used to fix the specimen.

Results Of the 32 patients reviewed and followed for five years. 18 were pT1 and 14 were pT2. 100% of pT1 lesions were sentinel node negative while 14.28% of pT2 lesions were node positive and proceeded to axillary dissection.

Conclusions Sentinel lymph node biopsy can be performed in a developing country and follow up is vital.

Clement Okolo*¹; Saddiq Sahabi²

¹University College Hospital Ibadan, Nigeria; ²Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria

Friday

22 November
2013

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Objective This is a descriptive study of the pattern of neoplastic and non-neoplastic tumors of the skin as seen in Sokoto State, north-western Nigeria, over a period of 8 years outlining the relativity between malignant and non-malignant tumor of the skin in that region

Methods The study was a retrospective descriptive analysis of skin tumor.

Results A total of 6,836 samples were sent to Histopathology laboratory of Usmanu Danfodiyo University Teaching Hospital for diagnosis from 1999 to 2006. Out of these 329 were skin lesions, making up 4.81% of the total. 61.4% (202) of the samples were neoplastic lesions while 38.6% (127) were non-neoplastic. 114 (56.4%) of the neoplastic cases were benign while 88 (43.6%) of the cases were malignant. Squamous cell carcinoma was the most common malignant neoplasm accounting for 46 cases (15.3%) followed by malignant melanoma accounting for 21 (7%) of cases. Of the benign conditions, there were 51 (16.9%) cases of chronic inflammation which was the most diagnosed followed by epidermal inclusion cyst with 46 (15.3%) and then haemangioma with 21 (7%) cases.

Conclusion These finding show that malignant skin neoplasms comprise a significant fraction of overall skin tumors in Sokoto, Nigeria and as such further detailed studies to enumerate the socio-cultural and genetic bases of skin cancer in this region should be embarked upon.

POSTER

Okuku, Fred

MEASURING THE IMPACT OF CLINICAL GUIDELINES FOR KAPOSI SARCOMA IN UGANDA

Fred Okuku*¹; Warren Phipps²; Corey Casper³; Jackson Orem¹

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**BIG CAT
grants II**
11h00–13h00
Friday
22 November
2013

Objective Clinical practice guidelines are a valuable tool used by oncologists to improve cancer outcomes and reduce costs of care. Despite the growing burden of cancer in sub-Saharan Africa (SSA), there are few clinical guidelines available that address care in this region. Cancer care guidelines specifically developed for resource-limited settings could provide an important strategy to guide use of resources, facilitate generation of local data on effective care practices, and ultimately improve cancer outcomes.

Methods A multidisciplinary panel of oncologists, infectious disease specialists, pharmacists, and nurses and key stakeholders at the Uganda Cancer Institute (UCI), in Kampala, Uganda and Fred Hutchinson Cancer Research Center (FHCRC) in Seattle, Washington will develop new evidence-based guidelines for KS care in Uganda. The guidelines will address staging workup, selection of primary treatment regimen, and measurement of treatment response. The committee will also identify specific quality metrics to measure important care processes, and develop standardized data capture forms that the UCI will use to follow these quality indicators. We will evaluate the impact of the guidelines on patient outcomes and care processes in the 6-month periods before and after guideline implementation. Clinician satisfaction with the guideline development and implementation process will be evaluated using focus group discussions and anonymous surveys.

Results Guideline recommendations and preliminary observations on guideline implementation will be presented.

Conclusions Analysis of the effect of KS guidelines on patient care processes, patient outcomes, and clinician satisfaction will help determine the utility of clinical practice guidelines in resource-limited settings.

POSTER 146

Thursday
21 November
2013

Ola, Tolulope Monisola

IMPACT OF INFOCANCER PROGRAMME ON EARLY DETECTION AND TREATMENT BREAST AND CERVICAL CANCER IN AN UNDERSERVED AREA

Tolulope Monisola Ola*

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Background Breast and cervical cancer are the commonest cancer among women in Nigeria and globally. In Nigeria late presentations of breast and cervical cancer have been consistent for decades. There is thus considerable potential for reducing mortality from breast and cervical cancer in Nigeria by detecting them early.

Objectives The study attempts to examine the number of challenging problems involved in screening for breast and cervical cancer in Nigeria. The study also investigates the socio-cultural perceptions of respondents towards breast and cervical cancer.

Methods A baseline was conducted using a Focus Group Discussion. The study population was women who were in the childbearing age (15–49) from which 620 women were selected using a multistage sampling technique. After the baseline, Sound Health Development Initiative (SHIN) implemented a program tagged “InfoCancer Project”(ICP) with the overall goal of improving communities access to high quality, readily available and accurate information about cancer. The ICP program has been running for a period of four years and there was a need to assess the effectiveness of the project. An evaluation was carried out among the 620 women in 2012 in four communities each in the three Senatorial Districts in Ekiti State. The following questions were raised to which answers were required:

1. Do communities participating in ICP have more knowledge about breast and cervical cancer than those who do not?
2. Are there changes in their perception about breast and cervical cancer?
3. Was there an increase in their knowledge, attitude and practice of breast self-examination?
4. Was there an improvement in the uptake/utilization of screening facilities in the State?

Results The findings of the study revealed that, there were significant improvements in knowledge, information, skills and practices favoring women in the intervention communities.

Conclusions Creating community awareness about cancer stigma and discrimination

ABSTRACT INCOMPLETE/EXCEEDS LIMIT

Ola, Tolulope Monisola
**KNOWLEDGE, ATTITUDE AND PRACTICE OF BREAST SELF
EXAMINATION AMONG RURAL WOMEN IN EKITI STATE, NIGERIA**

Thursday
21 November
2013

Tolulope Monisola Ola*
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Background/Objective Cancer remains a major health problem in many developing countries including Nigeria. In Ekiti State, there is currently virtually no information on the incidence and prevalence of breast cancer. The main aim of the study therefore was to evaluate the knowledge, attitudes, and actual practice of Breast Self-Examination (BSE) among rural women in the study area.

Method This descriptive cross sectional study to examine the knowledge, attitude and practice of BSE among rural women in Ekiti State was carried out between October and November 2012 using both qualitative and quantitative methods. A structured questionnaire designed by the researcher and administered by research assistants was used in collecting the quantitative data. Statistical analysis was done using Statistical Package for Social Sciences and information from focus group discussions and in-depth interviews were transcribed and organized under broad headings that depict different aspects of the discussions. The transcribed information were analyzed descriptively (qualitatively) and used to explain results of quantitative analysis where and when necessary.

Results Majority of the respondents were not aware of BSE. Attitude of respondents to BSE was positive but practice was low, with a fairly high degree of acceptability of the idea. The concept of cancer from the respondents view was characterized by mixed perceptions shrouded in mystery

Conclusion There was poor knowledge of cancer and practice of BSE was low in the study area. It is recommended that public education and awareness on the importance of BSE be intensified using the mass media.

Saturday
23 November
2013

Kelechi Oladimeji*¹; Ikeoluwapo Ajayi²; Olanrewaju Oladimeji³;
Clement Adebamowo⁴; Fawole Adewole⁵

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Faculty of Public Health, University of Ibadan, Nigeria; ³Center for Health
Services/Management Sciences for Health Abuja, Nigeria; ⁴Institute for Human
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Hospital, Ibadan, Nigeria

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Objective Breast Cancer (BC) is a common cause of death among Nigerian women. Identifying some of the risk factors is vital to strategic intervention in breast cancer control. This study was carried out to determine risk factors associated with BC among women in two referral hospitals in Nigeria.

Methods A case-control study was carried out among 266 women aged 20–80 years. Cases and controls were matched in the ratio of 1:3 for age and duration of stay in the area of residence. A semi-structured questionnaire was used to collect data on socio-demographic characteristics, familiar history, dietary pattern, nutritional status, physical activity and environmental factors.

Results The mean age of the respondents was 48.7 ± 11.8 years. Family history of BC was reported by 6.2% of the cases and 5.0% of controls. Dietary pattern revealed that cases (69.2%) and controls (54.7%) significantly had high risk consumption pattern for high calorie containing foods. Significantly more controls than cases had good exercise (17.9% versus 6.2%). The odds of developing BC was four times higher among women who reported daily exposure to fumes from automobiles and generators than those who were rarely exposed (OR=4.40, CI=1.25–15.57), seven times higher among women who reported occasional exposure to wastes from operating industries than those who were rarely exposed (OR=6.91, CI=2.87–16.66).

Conclusion Major risk factors were lack of exercise, high calorie intake, environmental pollutants.

Olabode Oluwole^{*1}; Bawa Ambimiku²; Olaniyi Adeosun³; Peter Omoreige³
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³Federal Medical Centre, Keffi, Nigeria

Sunday
24 November
2013

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Background Epidermal skin cancers are the most common cancers in humans. Epidermal skin cancers present a unique opportunity for effective intervention with both early detection and primary prevention. They are amenable to clinical diagnosis by simple visual inspection and to pathologic diagnosis by minimally invasive biopsy.

Objective To show that the cutaneous malignancies are common in our environment and frequently presents as superficial ulcer.

Materials and methods This is a 4-year retrospective histopathological analysis of cutaneous malignancies diagnosed between January 2006–December 2009 in the Department of Pathology, Federal Medical Centre, Keffi, Nasarawa State. The specimens were fixed in 10% buffered formalin, processed in paraffin wax and stained with haematoxylin and eosin. The slides were studied, the lesions were characterized and special stains done where necessary to confirm diagnosis.

Results Twenty-one cases were reviewed in this analysis. The age range was between 20–79 years with the mean age of 59.5 years. The male to female ratio was 1.1:1. The peak age distribution was in the fourth decade. The most common malignancy was squamous cell carcinoma 13 (65%) this was followed by malignant melanoma 6 (30%) and basal cell carcinoma 2 (5%) respectively. The lower extremity was the commonest site with 11 (52.3%) cases; this was followed by the head and neck region with 7 (33.3%) cases, while one (4.8%) case each presented in the anterior chest wall, elbow and at an unspecified site.

Conclusion Cutaneous malignancies are common in our environment; the early sign is that of chronic non-healing ulcer. So there is need for high index of suspicion on the part of the Clinicians and Pathologists. Early identification of high-risk lesions can allow for more rapid therapeutic intervention, reducing the likelihood of metastasis and death.

Ayodele Omotoso*
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Friday
22 November
2013

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Objective The malignancy of the female genital tract is an important lesion because it is the leading cause of cancer death in female. Cancer of the uterine cervix and breast are the commonest female malignancy and they have high mortality and morbidity especially in developing countries where late presentation is almost a norm. The study is aimed at analysis different gynaecological malignancy excluding breast with a view at reviewing the age at presentation of these malignancy and the different anatomic locations of these lesions.

Methods The histology register of department of pathology, university of Calabar was accessed and different histological diagnosed gynaecological malignancy were retrieval with the age and anatomic location. This information is analysed using simple statistical analysis.

Results A total of one hundred and fifty (150) gynaecological malignancy excluding breast malignancy was seen during the study period. One hundred and fifteen cases are cervical cancer with percentage of 76.7 of the gynaecological malignancy. The median and modal age group is at the 3rd decade of life. Ovarian cancer and corpus uterine cancer are 2nd and 3rd highest malignancy with 12% and 7% respectively. 23(15.3%) cases were excluded from the studied cases for lack of adequate information especially as regard the age status.

Conclusions The cancer of the uterine cervix is the commonest malignancy of female genital tract in Calabar. It is interesting to note that cervical and ovarian cancer in Calabar peak at similar age group. The early manifestation of gynaecological malignancy within the 3rd decade of life in Calabar suggests urgent need for early screening methods and vaccination of the necessary ones.

Friday
22 November
2013

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Objectives Providing psychosocial and educational counselling to people living with cancer via telephone (tele-counselling) is a potential alternative to traditional (in person) counseling; given the current ubiquity and relative affordability of mobile phones in Nigeria. This study assessed the feasibility and relevance of tele-counselling at the hospice and palliative care unit of the University College Hospital (UCH), Ibadan.

Methods A retrospective study of 350 patients seen and followed up between March 2010 and February 2012 at the palliative care unit was conducted. Telephone counselling encounters between health care professionals (HCP) and patients as well as between HCP and caregivers were audited.

Results Findings revealed that 28.6% were males while 71.4% were females. Patients with cancer of the breast constituted the majority (25.8%), followed by cervical cancer (20.0%) and gastrointestinal cancer (13.4%). In all, HCP, patients and their carers made 242 calls. There were 100 calls from HCP to patients, 70 from patients to HCP, 32 from families to HCP and 40 from HCP to patients' carers. Out of these calls, 65 were related to physical symptoms such as nausea and vomiting, 51 related to pain, 40 on psychological issues, 22 on social issues. Although majority of patients were at the end-of-life, only 10 out of the 70 calls received from them focussed on death-related concern. However, healthcare professionals made 54 bereavement calls to the patients' relations.

Conclusion Our study shows the feasibility and relevance of tele-counselling in the provision of palliative care services to patients living with cancer in Nigeria where many patients don't have easy access to health care facilities for follow-up care. Our study also supports the observation that majority of Nigerians are reluctant to talk about death and dying, even when it becomes eminent.

WORK- SHOP

BIG CAT

grants II

11h00–13h00

Friday

22 November

2013

Onwudiwe, Elijah

COLD COAGULATION VERSUS CRYOTHERAPY FOR IMMEDIATE TREATMENT OF WOMEN WHO TEST POSITIVE TO VIA & VILI IN RURAL AFRICAN SETTINGS

Elijah Onwudiwe*¹; Chibuike Chigbu*¹; Stella Iwuji²; Emeka Nnakenyi¹

¹University of Nigeria Teaching Hospital, Enugu, Nigeria; ²Center of Women and Gender Studies, Imo State University, Owerri, Nigeria

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On-going study (Study commenced July 2013. Expected duration: 2 years).

Cryotherapy and cold coagulation are ablative methods of treatment of pre-malignant lesions of the cervix. Both methods hold good prospects for immediate treatment of VIA-positive women in low-resource settings. Scientific evaluations of both treatment methods in immediate treatment of women who test positive to VIA and VILI are needed.

The study is aimed at comparing the effectiveness of cryotherapy with that of cold coagulation in single visit 'see and treat' management of cervical premalignant lesions detected by VIA and VILI.

The research goal is to evaluate the method effectiveness, cost effectiveness, and acceptability of cryotherapy and cold coagulation in single visit 'see and treat' management of cervical premalignant lesions detected by VIA and VILI in south eastern Nigeria.

Communities in 3 states in south eastern Nigeria were randomly selected to participate. Women residing in the participating communities are screened for cervical premalignant lesions with 5% acetic acid and Lugol's iodine (VIA & VILI respectively). Eligible VIA- and VILI-positive women are randomised to receive either cryotherapy or cold coagulation at same clinic visit. Cervical biopsies are taken prior to treatment.

The main outcome measures include method cure rates, duration of treatment per patient, treatment-cost per patient, logistics-cost per method, complication rates, and patient acceptability.

Initial preliminary results will be analyzed after 6 months.

Opoku, Constance

AN ASSESSMENT OF ACCEPTABILITY OF HOSPITAL BASED CERVICAL CANCER SCREENING WITH AN INTEGRATED APPROACH IN THE NORTHERN REGION OF GHANA

Friday
22 November
2013

Constance Opoku*¹; Edmund Browne²; Kathryn Spangenberg³; David Kolbilla¹; Cheryl Moyer⁴; Katherine Gold⁴

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Objective This study was to assess knowledge about cervical cancer and whether women attending antenatal clinics and post-natal clinics would be willing to screen for cervical cancer as part of their routine care at these clinics, seeking to improve screening rates.

Methods A convenience sample of three hundred women were selected from the antenatal and postnatal care clinics in Tamale, Ghana. We interviewed them using a semi-structured questionnaire to inquire about demographics, knowledge of cervical cancer and willingness to screen during antenatal or postnatal care.

Results Based on preliminary data from 262/300 women interviewed to date. 177 (68%) respondents had never heard about cervical cancer. Of those who had heard about cervical cancer 64 (75%) had no knowledge of risk factors of cervical cancer and only 9 (3.4%) women had been previously screened. 251 (96%) women said they were willing to screen at a hospital setting with 153(59%) preferring the antenatal care clinic as the screening site.

Conclusion Women in Tamale, Ghana have a dramatically low level of knowledge about cervical cancer and may benefit from educational campaigns. These women are almost never screened for cervical cancer. Women were receptive to the option of screening during antenatal or postnatal care which could be an innovative public health approach to increase screening coverage.

POSTER 153

Opoku, Paul

**ACO ESTABLISHING CANCER INFORMATION SERVICE CENTER IN
ACCRA, GHANA**

Paul Opoku*; Comfort Gyamfi
African Cancer Organisation, Ghana

Friday
22 November
2013

Correspondence Opoku, Paul
Email: acoghana@gmail.com

Background African Cancer Organisation (ACO) seeks to establish a Cancer Information Service (CIS) Centre in Accra, Ghana. The CIS will offer information about cancer and support services to cancer patients, families and friends, general public and health care professionals.

Objective The project will ensure that everyone living in Ghana who is eligible has access to free and confidential cancer information service. The project will establish the needed infrastructure and also build capacity of personnel required to provide cancer information service to the public.

Methodology Trained information specialists will provide a one-on-one interaction by either telephone, e-mail, instant messaging or in person visit. The service will be free and confidential. The project will involve setting up an office, distribution of information, education and communication materials to educate the public about cancer prevention.

Conclusion Although much remains to be learned about cancer, enough is now known about the risks and causes of most cancers and means of control for suitable intervention to have a significant impact. ACO CIS, tailored to the socio-economic and cultural context, is to ensure that cancer information is available to everyone who is eligible. This we believe will help prevent people from getting exposed to avoidable cancer risk factors and also help downstage cancers by early-detecting the disease at stages where cure is often possible, which will ultimately help avert the currently prevailing high incidence of cancers in Ghana. ACO is by this looking for partners with similar mandate to collaborate to establish and sustain the CIS.

Thursday
21 November
2013

Paul Opoku*; Comfort Gyamfi
African Cancer Organisation, Ghana

Correspondence Opoku, Paul
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Objective Discuss how ACO is promoting cancer prevention.

Methodology ACO areas of priorities are:

1. Cancer Prevention: (a) Awareness and Education: Promoting the importance of preventative measures of cancer through healthy lifestyle, and (b) Screening and Early Detection: Promoting the establishment of community-based and (ad-hoc) mass cancer screening to help detect cancers at early stages where cure is often possible.
2. Cancer Advocacy: Involvement of people from the general public as a fundamental political and economic group to systematically change cancer policies and programs to reflect the changing needs of individuals and communities; and
3. Cancer Research: We promote the establishment of population-based cancer registries to collect, store and analyze data on persons with cancer in order to provide essential information on the incidence, prevalence, trends, mortality, and survival rates which is required to help develop a realistic and sustainable cancer control plan.

Conclusion Most Africans cannot currently access curative therapies, state-of-the-art surgery or expensive cancer drugs that are the mainstay of cancer care in developed nations. Therefore, scaling up prevention and early diagnosis will be the most cost-effective ways of dealing with cancer. ACO is dedicated to reducing the impact of cancer in Africa through the provision of effective and feasible public awareness interventions aimed at reducing cancer incidence, suffering and mortality. The vision of ACO is to increase awareness about primary prevention and early detection in a bid to phase out the currently prevailing advanced stages of cancers in Africa.

Saturday
23 November
2013

Elkanah Orang'o*¹; Peter Itsura¹; John Oguda¹; Hellen Muliro¹; Fredrick Asirwa²; Matthew Strother³; Astrid DebChristopherson⁴; Luc van Lonkhuijzen⁵; Patrick Loehrer²; Barry Rosen⁴

¹Moi University, Kenya; ²Indiana University, United States; ³Christchurch Hospital, Canterbury, New Zealand; ⁴University of Toronto, Canada; ⁵Center for Gynaecologic Oncology Amsterdam, Netherlands

Correspondence Orang'o, Elkanah

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Introduction Cervix Cancer (CC), the most common cancer affecting women in Sub-Saharan Africa, has a mortality rate in excess of 80%. In high income countries CC incidence and mortality has decreased with effective screening and treatment. The gap in care between African and high income countries is not only resource based but is also related to organization of cancer services.

Methods We developed a structured comprehensive approach to CC care within an established HIV program (AMPATH). The CC program includes screening with VIA, cryotherapy, and LEEP. Screening is supported by a CC treatment program which includes surgery, chemotherapy, palliation and hospice care. Treatment protocols were established through multidisciplinary evidence based consensus approach. Coordination between pathology, radiology, pharmacy and nursing was a critical first step. The introduction of surgical oncology required an intensive training program with North American mentors. A data base was established to collect information on treatment and patient outcomes.

Results 18,350 women have been screened with VIA, 525 treated with cryotherapy, and 225 with LEEP. 82 patients have undergone radical hysterectomy, 261 treated with neoadjuvant chemotherapy. A 2 year gynaecologic oncology fellowship training program was initiated with a goal to establish a sustainable program and dispersement of this expertise throughout Kenya.

Conclusions This program demonstrates that a structured approach using evidence based treatment algorithms can effect change and improve care for women with cervix cancer in the resource limited environment of Western Kenya. We believe this approach can be copied and used in other settings in Africa.

WORK- SHOP

Orang'o, Elkanah

A MULTIFACETED INTERVENTION TO REDUCE LOSS TO FOLLOW UP IN A CERVICAL CANCER SCREENING PROGRAMME

Free
communication
of abstracts V
11h00–13h00
Sunday
24 November
2013

Elkanah Orang'o*¹; Peter Itsura¹; John Oguda¹; Kapten Mwendwa¹;
Luc van Lonkhuijzen²; Barry Rosen³
¹Moi University, Kenya; ²Center for Gynaecologic Oncology Amsterdam,
Netherlands; ³University of Toronto, Canada

Correspondence Orang'o, Elkanah
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Objective Cervical cancer screening with Visual Inspection with Acetic acid (VIA) has been proven to reduce mortality. We introduced a screening programme in 2010. Women identified with a lesion on the cervix who are not eligible for cryotherapy, were triaged to colposcopy and biopsy. Initially there was a high loss to follow up amongst these women with a high suspicion of CIN or cancer. We examine the effect of a multifaceted intervention to reduce loss to follow up.

Methods All screened women are captured in a database. A multifaceted approach to reduce loss to follow up was initiated in 2011 and included: Telephone reminders to clients reminding them of their appointment, women who missed a visit were contacted by a research assistant or they were tracked when attending other clinics. More effort was invested in educating women about the importance of colposcopy. Loss to follow up is compared between 2011 and 2012.

Results In 2011, 1132 women had a positive VIA screen and of these 276 (23.6%) were treated with cryotherapy. Of the 856 women referred for colposcopy, 217 (25.4%) were lost to follow up. In 2012, after initiation of our new approach, 1166 were VIA positive, 450 (38.6%) got cryotherapy. Of 716 women referred for colposcopy, only 37 (5.2%) were lost to follow up.

Conclusion Our multifaceted approach was associated with a marked decrease in loss to follow up. In addition we saw a marked increase in the number of women who were treated with cryotherapy on their first visit suggesting increased experience and confidence amongst the screening staff.

WORK- SHOP

Orem, Jackson

HIV NON-HODGKIN'S LYMPHOMA (H-NHL) IN SUB-SAHARAN AFRICA (SSA): NEED FOR BETTER UNDERSTANDING

**AIDS-related
malignancies**

11h00–13h00

Sunday

24 November

2013

Jackson Orem*

Uganda Cancer Institute, Uganda

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HIV-associated non-Hodgkin's lymphomas (H-NHL) comprise a group of heterogeneous lymphoid malignancies. They differ by site of origin, disease presentation, and therapy. Their pathogenesis is multifactorial, involving immune system interaction with HIV or other pathogens. Manifestations are defined by immune dysfunction, lack of pathogens control and persistent immune activation.

It is believed that globally increased uptake of HAART has led to change in the epidemiology of HIV lymphomas reducing incidence and improving outcome. However this holds true mainly in the developed countries. In the developing countries of Sub-Saharan Africa the prevalence of HIV related lymphoma is still high. This indicates the influence of HIV on the development of lymphoma in Africa. A trend in presentation and survival of lymphoma hasn't been well studied in Africa in HAART era. Despite lack of clear picture of incidence at population level, the indicators are that concomitant use of HAART and chemotherapy may have a positive impact on outcome.

Optimizing this observation requires understanding the potential role better treatment and supportive care, which are often lacking, may play. There is need to define better the burden of H-NHL subtypes and outcome measures, bearing in mind factors influencing treatment choice. Conclusion H-NHL is still a major challenge among HIV infected population in Africa despite increasing access to HAART. The disease pathogenesis and characteristics still favours optimistic treatment intent. However better understanding of disease background factors and innovative treatment strategies will further narrow the outcome gap currently observed between HIV+ and HIV-.

WORK- SHOP

**MD Anderson
global initiative
for cancer care
in Africa**
14h30–17h30
Thursday
21 November

Orlowski, Robert

EMERGING CONCEPTS IN THE MANAGEMENT OF MULTIPLE MYELOMA

Robert Orlowski*

The University of Texas MD Anderson Cancer Center, United States

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Multiple myeloma is a malignant plasma cell disorder characterized clinically in symptomatic patients by hypercalcemia, renal insufficiency, anemia, and lytic bony disease. In many areas it is the second most commonly diagnosed hematologic malignancy, and its incidence is increased among peoples of African origin, making it an important source of morbidity and mortality worldwide.

While in the past this disease was uniformly fatal, and median overall survival was only on the order of 3.5 years, the development of novel drug classes such as immunomodulatory agents and proteasome inhibitors, along with the use of high dose therapy approaches supported by stem cell rescue, has dramatically altered its natural history. Rationally designed combination regimens can now achieve a response in virtually all newly diagnosed patients, and the majority can enter a complete remission even before the use of stem cell transplantation.

Novel maintenance approaches are able to prolong progression-free and likely overall survival in both transplant-eligible and -ineligible patients, and a wider array of drugs are becoming available in the relapsed and/or refractory setting, including drugs with new mechanisms of action. Moreover, a greater understanding of the pathobiology of myeloma, as well as the mechanisms by which our current drugs act, as well as how myeloma becomes resistant to them, is bringing us closer to being able to individualize therapy to the molecular characteristics of each patient's disease. These developments have doubled survival of patients with myeloma in the past decade, and will bring us closer to a cure for this disease.

LUNCH SESSION

Othieno Abinya, Nicholas Anthony

CANCER MANAGEMENT IN AFRICA: THE NEED FOR GUIDELINES

Nicholas Anthony Othieno Abinya*
University of Nairobi, Kenya

**Guidelines
for cancer
management**
13h15–14h15
Saturday
23 November
2013

Correspondence Othieno Abinya, Nicholas Anthony
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Africa is arguably the continent with the highest concentration of natural resources that can be harnessed for human development, yet the most resource challenged continent. About 715,000 new cancer cases and 542,000 cancer deaths occurred in 2008 in Africa, top on the list being cancers of female breast and cervix, prostate, and lung. The majority are diagnosed late; therefore survival is much poorer than in any other continent.

Most cancers here are treated by herbalists and quacks masquerading as professors of one discipline or the other. Even the few available experts engage in individualized practices that don't benefit patients. Oftentimes costly and toxic curative treatments are offered to patients at the extreme end of life, and at the same time half-hearted treatments are offered to patients who deserve intensive curative approaches.

The continent can be zoned into 3 main areas: South Africa, North Africa, and Sub-Saharan Africa. Unique opportunities and facilities existing in North and South put physicians there in a unique position that should be engaged to benefit the rest of the continent.

North Africa is currently working with the Middle East in MENA regions to adopt NCCN Guidelines. South Africa has developed some local guidelines and Kenya has just adopted ESMO Guidelines.

These splintered guidelines can be consolidated into a comprehensive Africa wide guideline that will enhance cancer treatment and prevention in the whole continent, avoid duplication of efforts and wastage of scarce resources.

Othieno Abinya, Nicholas Anthony
POST CHEMOTHERAPY NEUTROPHIL DYNAMICS AND DEATH
COMPLICATING FEBRILE NEUTROPENIA: EXPERIENCE FROM NAIROBI

Nicholas Anthony Othieno Abinya*¹; Sitna Ali Mwanzi²
¹University of Nairobi, Kenya; ²Aga Khan University Hospital, Kenya

Saturday
23 November
2013

Correspondence Othieno Abinya, Nicholas Anthony
Email: hurlonco@africaonline.co.ke

Background In chemotherapy for chemocurable cancers relative dose-intensity of chemotherapeutic agents should be maintained to as close to 100% of the standard protocol as possible. The most important factor that prevents achievement of this is myelosuppression, mainly severe neutropenia with septic complications.

Methods We studied patients undergoing pulsed, non-acute leukaemia chemotherapy between April 2009 and December 2012 inclusive. Parameters recorded included biodata, diagnosis, chemotherapy details, baseline blood counts prechemotherapy and nadir counts post chemotherapy, if patient was hospitalized following chemotherapy and reason, and if death occurred, cause of death.

Results One hundred and thirty-seven (137) patients, males 43 (31.4%) and females 94 (68.6%). Age range 14–85 years, median 47. Commonest cancers were breast in 45 (32.8%), 19 (13.9%) aggressive phenotype non-Hodgkin's lymphoma, and 11 (8.0%) ovarian. A total of 329 treatment cycles were analyzed. Treatment protocols most commonly used were doxorubicin 60 mg/m² and cyclophosphamide 600 mg/m² (AC 60/600), with or without 5-fluorouracil 600 mg/m² (CAF 60, 600, 600), cyclophosphamide, doxorubicin, vincristine and prednisone (CHOP) with/without rituximab 375 mg/m² (R-CHOP). Prophylactic granulocyte colony-stimulating factor had been administered following 46 treatments. National Cancer Institute (NCI) grade 4 neutropenia complicated 65 (19.8%) treatments, profound neutropenia being 20 (6.1%). Death from septic neutropenia complicated 17 treatments (26.2%), all grade 4 and profound, none having utilized prophylactic growth factors. Five deaths occurred at the time of neutrophil recovery, 6 at trough and 6 at decline.

Conclusion Profound neutropenia carried high mortality rates. Prophylactic growth factors in high risk cases prevented its occurrence.

Othieno Abinya, Nicholas Anthony
WHAT COULD BE SOME RISK FACTORS FOR BREAST CANCER OCCURRENCE? EXPERIENCE FROM NAIROBI

Saturday
23 November
2013

Nicholas Anthony Othieno Abinya*¹; MD Maina²; Eliud Njuguna²; Peter Wanzala³; Henry Otieno Abwao²; Ann Kabura Waweru²; Catherine Nyongesa²; Lucy Muchiri¹; Richard Baraza⁴; Wairimu Waweru¹; Raymond Omollo³; Emily Rogena¹; Anselmy Opiyo²; Ahmed Kalebi²; Alice Musibi⁶; Joseph Wangombe Githaiga¹; Noel Onyango Ochieng¹

¹University of Nairobi, Kenya; ²Kenyatta National Hospital, Kenya; ³Kenya Medical Research Institute, Kenya; ⁴Nairobi Hospital, Kenya; ⁵Lancet Pathologies, Kenya; ⁶Aga Khan University Hospital, Kenya

Correspondence Othieno Abinya, NA | Email: hurlonco@africaonline.co.ke

Background Breast cancer rates in high-income countries increased with industrialization and urbanization but are now declining, yet sharply increasing in low-income countries after adoption of western type lifestyles.

Methods Women with newly diagnosed breast cancer were matched with controls for age. A questionnaire was administered to detail biodata, parity, residence, patterns of brassiere wearing, occupation, family history of breast cancer, oral contraceptive use, diet and body mass-index. Multivariate statistical models were used to discriminate confounders, and significance calculated at 95% confidence intervals.

Results Cases and controls were 350 each. Median age was 48 years, range 22-96. Factors associated with high risk were family history of cancer (OR=3.54, $p < 0.01$), having some form of employment rather than none (OR=3.42, $P < 0.01$), and farming as an occupation (OR=1.51, $p = 0.01$). Majority (86.3%) of cases and controls had worn brassieres at some point. Patterns of brassiere wearing were not significantly different between cases and controls, (OR=0.78, $P = 0.27$). However 251 cases (71.7%) and 182 controls (52%) wore brassieres all the time except when in bed, while 99 cases (28.3%) and 168 controls (48%) never wore brassieres, or only did on important occasions. These differences were statistically significant (OR=1.51, $P < 0.01$). Body mass-index < 30 was associated with low risk (OR=0.38, $P = 0.01$).

Conclusions Well-established and some hither-to unknown factors such as constant brassiere wearing could be contributing to breast cancer occurrence.

WORK- SHOP

Oyekunle, Anthony

SURVIVORSHIP IN NIGERIAN PATIENTS WITH CHRONIC MYELOID LEUKEMIA: A STUDY OF 527 PATIENTS OVER 10 YEARS

**Free
communication
of abstracts II**

14h30–17h30

Friday

22 November

2013

Anthony A Oyekunle*; Muheez A Durosinmi; Ramoni A Bolarinwa;
Lateef Salawu; Norah O Akinola
Obafemi Awolowo University, Nigeria

Correspondence Oyekunle, Anthony

Email: oyekunleaa@yahoo.co.uk

Objectives The advent of the tyrosine kinase inhibitor (TKI) has markedly changed the prognostic outlook for patients with Ph+ and/or BCR-ABL1+ chronic myeloid leukaemia (CML). This study was designed to assess the overall survival (OS) of Nigerian patients with CML on imatinib therapy.

Methods All CML patients on imatinib from July 2003 to June 2013 were reviewed. The clinical, haematological and biochemical parameters were monitored over the period. The Kaplan–Meier technique was used to estimate overall survival (OS) and median survival over the period of study. P-value of ≤ 0.05 was considered statistically significant.

Results The median age of all 527 patients (male/female = 320/207) was 37 (range, 10–87) years. There were 472, 47 and 7 in chronic (CP), accelerated (AP) and blastic (BP) phases respectively. As at June 2013, 442 patients are alive. Median survival was 105.7 (95%CI, 91.5–119.9) months; while OS at 1, 2 and 5 years were 95%, 90% and 75% respectively. Survival in CP was significantly better ($p < 0.0001$) when compared to those in AP or BP (107.3, 74.7 and 53.7 months respectively).

Conclusion After 10 years of follow-up, imatinib monotherapy continues to give impressive survival outcomes among Nigerian CML patients. However, our patients have limited access to second-line TKIs, possibly accounting for the reduced survival when compared with outcomes in Western populations.

**POSTER
158**

Oyewole, Olugbenga

**MALIGNANT TUMOURS OF INFANCY AND CHILDHOOD IN A
TERTIARY HEALTH CARE: OUR EXPERIENCE**

Olugbenga Oyewole*; Sunday Soyemi; Adedayo Faduyile
Lagos State University, Nigeria

Sunday
24 November
2013

Correspondence Oyewole, Olugbenga
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Introduction Malignant tumours in infancy and childhood constitute about 2% of all malignant tumours. They differ biologically and histologically from their counterparts occurring later in life. This study has attempted to analyse the various infancy and childhood malignant tumours seen in our centre.

Method A retrospective study of all cases of malignant tumours covering a period of 5 years i.e. from January 2008 to Dec 2012 was conducted. Histopathological reports were retrieved and broken slides were recut and stained. The data was analysed using the SPSS statistical package.

Results Altogether 56 out of 2,610 cases representing 2.2% of all tumours were seen in this study with females constituting 52% and males 42%. The male to female ratio (M: F) was approximately 1:1. Tumors are more common in children above 42 months of age. 25% of the malignant tumours were Wilm's tumour, 20% were Retinoblastoma and 9% Rhabdomyosarcoma.

Conclusion Wilms tumour is the commonest childhood malignant tumour.

PLENARY

Breast cancer

09h10–10h30

Saturday

23 November

2013

Panieri, Eugenio

MANAGING HIGH RISK PATIENTS IN LOW-RESOURCE SETTINGS: ARE WE READY TO SCREEN AND PROVIDE COMPREHENSIVE MANAGEMENT

Eugenio Panieri*

University of Cape Town, South Africa

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The management of high risk patients rests on the correct evaluation of risk, patient counselling, advice about lifestyle measures, clinical and radiological screening, and the judicious use of chemoprophylaxis and surgery. Patients are defined to be at high risk of breast cancer if their calculated lifetime risk exceeds the baseline population risk by two-fold. A number of published risk analysis models aid clinical identification of such patients by either estimating the risk of breast cancer development, or the risk of carrying a genetic mutation associated with breast cancer. None of these models have been validated in low resource countries, or in the African continent, and in this context they have to be used with caution. Comprehensive management guidelines are derived from high income countries, and are not widely applicable to low resource settings, with the exception of isolated centres of excellence.

WORK- SHOP

Parham, Groesbeck

100,000 WOMEN SCREENED THROUGH THE CERVICAL CANCER PREVENTION PROGRAMME IN ZAMBIA

**Cervical
cancer
prevention II**
11h00–13h00
Thursday
21 November
2013

Groesbeck Parham*¹; Mulindi Mwanahamuntu²; Sharon Kapambwe³; Carla Chibwasha⁴; Allen Bateman⁴; Vikrant Sahasrabudde⁵

¹Centre for Infectious Disease Research in Zambia, Zambia; ²Centre for Infectious Disease Research, Zambia; ³Centre for Infectious Disease Research, Zambia; ⁴University of North Carolina, United States; ⁵Vanderbilt University, United States

Correspondence Parham, Groesbeck
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Background Globally, more than 80% of the 470,600 annual new cases and 233,400 annual deaths due to invasive cervical cancer occur in the developing world. Within sub-Saharan Africa, an estimated 70,000 new cases of cervical cancer occur annually, accounting for 25% of all female cancers.

Methods In response to Zambia's heavy cervical cancer burden, the Ministry of Health, University Teaching Hospital and Centre for Infectious Disease Research in Zambia, established a cervical cancer prevention service platform using digital cervicography. Cervical cancer screening services have now been scaled up nationally. We report numbers of women screened, their characteristics, and screening outcomes.

Results Between January 2006 and June 2013, 101,106 women were screened for cervical cancer through the program. The median age of women screened was 32 years (interquartile range: 26–39 years). 26,568 (26.3%) women were HIV-infected. 29,616 (29.3%) did not know their HIV serostatus and were offered HIV testing at the time of cervical screening. Of the 101,106 women screened, 19,093 (20.2%) were VIA screen positive. Of those that screened VIA positive 11,472 (60.1%) underwent cryotherapy and 3,355 (17.6%) underwent either electrosurgical excision (“see and LEEP”) or punch biopsy. Among 3,355 women with a histologically-confirmed diagnosis, 1,688 (50.3%) had benign or low-grade cervical lesions, 905 (27.0%) had high-grade cervical lesions, and 762 (22.7%) were diagnosed with invasive cervical cancer.

Conclusions Digital cervicography-based cervical cancer screening and treatment programs are effective and scalable in resource-constrained settings like Zambia.

WORK- SHOP

Parkin, Donald Maxwell

ESTIMATES OF CANCER INCIDENCE AND MORTALITY IN SUB-SAHARAN AFRICA IN 2012

**African Cancer
Registry
Network**

14h30–17h30

Friday

22 November
2013

Donald Maxwell Parkin*

African Cancer Registry Network, United Kingdom

Correspondence Parkin, Donald Maxwell

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Estimates of the incidence, mortality and prevalence of 28 cancers in 2012 have been prepared for 46 countries in sub-Saharan Africa as part of the GLOBOCAN series published by the International Agency for Research on Cancer. The methods of estimation are country specific and the quality of the estimation depends upon the quality and on the amount of the information available for each country.

For 26 countries incidence was estimated from cancer registry data, mostly from AFRCN member registries. For 7 countries, “national” data were available, but none were considered to be of “high quality” (with publication in the “CI5” series); only regional registries in 3 countries met this criterion. For 20 countries, there were no available cancer data, and estimates were based on values from neighbouring countries. For all but 2 countries, mortality rates estimated from incidence, using survival rates modelled using country-specific human development index. Overall, an estimated 540,000 new cancer cases and 470,000 cancer deaths occurred in 2012. The most commonly diagnosed cancers were breast (14.7% of the total), cervix (14.5%) and prostate (8.5%).

Striking differences in the patterns of cancer are observed – for example for cancers of the oesophagus, and AIDS-related cancers (Kaposi sarcoma and non-Hodgkin lymphomas). Cancer is not a rare disease in sub-Saharan Africa – the probability of an African woman developing cancer before age 65 is about 9%, compared with a world average of 10%, and 14% for a woman in a high-income country.

Peko, Jean Félix

**LES CANCERS DE VESSIE: ASPECTS ÉPIDÉMIOLOGIQUES ET HISTOPRONOSTIQUES À BRAZZAVILLE
BLADDER CANCER: EPIDEMIOLOGICAL ASPECTS AND HISTOPROGNOSTIC IN BRAZZAVILLE**

Saturday
23 November
2013

Jean Félix Peko*
Université Marien Nguabi, Republic of Congo

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Résumé Dans ce travail, nous avons voulu déterminer le profil épidémiologique et histopronostiques des cancers de vessie à Brazzaville.

Patients et méthodes Il s'est agi d'une étude rétrospective réalisée entre 1990 et 2006, à partir des registres et doubles des comptes rendus du Laboratoire d'Anatomie et de Cytologie Pathologiques du Brazzaville. Nous avons retenu les données des patients dont le diagnostic de cancer de vessie avait été fait sur biopsies ou pièces opératoires. Les variables étudiés ont été l'âge et le sexe des patients, les types histologiques, le grade et le niveau d'invasion tumorale.

Résultats Pendant la période d'étude 40 dossiers ont été colligés. Les cancers de vessie occupaient le deuxième rang des cancers urologiques après ceux de la prostate. Dans 80% des cas les patients provenaient des départements d'endémicité de la bilharziose urogénitale. L'âge moyen était de 48 ans avec des extrêmes de 21 ans et 75 ans. Le sex-ratio était de 1,25. Le type histologique prédominant était le carcinome urothélial (52,5%), suivi du carcinome épidermoïde (45%) et de l'adénocarcinome (2,5%). Parmi les carcinomes épidermoïdes, 27,7% comportaient des œufs de *Schistosoma haematubium*. Dans le groupe des carcinomes urothéliaux, nous avons dénombré 19% de grade I; 33,4% de grade II; et 47,6% de grade III. Le niveau d'invasion par rapport aux différentes assises de la paroi vésicale avait été évalué pour 35 cancers et selon la classification de l'UICC, 8,6% étaient coté T1, 71,4% T2 et 20% T3.

Conclusion Les cancers

ABSTRACT INCOMPLETE/EXCEEDS LIMIT

WORK- SHOP

Phipps, Warren

HIV PROGRESSION AND HUMAN HERPESVIRUS-8 REPLICATION AMONG UGANDAN ADULTS

**Free
communication
of abstracts I**
11h00–13h00
Friday
22 November
2013

Warren Phipps*¹; Edith Nakku-Joloba²; Moses Joloba²; Anna Wald³;
Elly Katabira²; Corey Casper¹

¹Fred Hutchinson Cancer Research Center, United States; ²Makerere University,
Uganda; ³University of Washington, United States

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Objective HIV infection significantly increases the risk of developing Kaposi sarcoma (KS) among persons co-infected with human herpesvirus-8 (HHV-8). In vitro studies suggest that a virologic synergy exists between HHV-8 and HIV, resulting in co-stimulation of viral replication. We sought to determine if HIV disease progression is associated in vivo with higher rates of HHV-8 replication among HIV-infected Ugandan adults.

Methods We tested plasma specimens for HHV-8 DNA by PCR from participants enrolled in the Partners in Prevention HSV-2/HIV Transmission Trial, a randomized trial of acyclovir for HSV-2 suppression to reduce HIV-1 transmission in HIV-1 discordant couples in Africa. Participants were followed up to 24 months, and blood specimens were collected quarterly. HIV progression was defined as a composite endpoint of CD4<250, initiation of ART, or death.

Results 450 HIV-infected participants enrolled in Uganda were included. 232 (52%) were women, and the median age was 33 years (range, 19–64 years). The median baseline CD4 count was 469 cells/mm³ (IQR, 345,655). Based on an interim analysis of 168 participants, HHV-8 was detected at least once among 20 (12%) participants. Overall rates of HHV-8 viremia were higher among persons who experienced progression of HIV disease (9%; 24/274) compared to those who did not (3%; 13/396) (IRR, 1.5 [95% CI, 0.9–2.4]; P=0.09).

Conclusions In this unique longitudinal cohort, we found a trend toward more frequent detection of plasma HHV-8 in persons with HIV disease progression. Further analysis of the entire study population will more fully characterize the in vivo relationship between HHV-8 and HIV.

POSTER 160

Thursday
21 November
2013

Phung Thi, Huong

HAPPINESS OF BREAST CANCER SURVIVORS IN HANOI-VIETNAM

Huong Phung Thi*¹; Bac Nguyen Hoa²; Tung Nguyen Dinh³;
Tuyet Mai Nguyen Thi⁴

¹Vietnam Environment Protection Fund, Vietnam; ²Ministry of Agriculture and Rural Development, Vietnam; ³Hue Central Hospital, Vietnam; ⁴Member of Breast Cancer Club (BCC), Vietnam

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Objectives The Breast Cancer Club (BCC) of Hanoi was established in 2009 by initiative of National Cancer Hospital in Hanoi, which focus on update, encouraging, delivering health education, awareness information as well as reducing anxiety, pain, improving the quality of life for breast cancer patients.

Methods Every Saturday in the end of month, the BCC offers free services provided by volunteers, oncologists, breast cancer survivors, and other professionals. International experts also to educate, consult and provide care for all cancer patients and their families. A variety of subjects are discussed at all meetings geared to help patients and their caregivers. All of donations are supplied for cancer patients.

Results After over 4 years operation, the BCC has been higher 3,500 patients and family members participated and received very good information. Patients have been not only sharing, learning cancer treatment, but also exposed to music therapy, yoga, massage and dance therapy. They are very happy and become optimist communicator for cancer prevention in their local. Due to the success from BCC and based on need there are plans last year to expand the model of Club to two cities in Can Tho, Ho Chi Minh and this year in Hue City.

Conclusion The BBC was established based on of limited information of breast cancer patients. All breast cancer survivors and their relative were very happiness with these activities. BCC is very good improvement and upgrading as well as making active thinking to continue the life for breast cancer survivors. The opportunity to participate in the AORTIC 2013 in Durban, South Africa, would prove invaluable to the cancer group in Vietnam.

Plo, Kouie

CLINICAL MANAGEMENT OF DELAYED DIAGNOSED BURKITT'S
LYMPHOMA REPORT OF 21 NEW CASES

Kouie Plo*

University Teaching Hospital of Bouake, Cote D'Ivoire

Sunday
24 November
2013

Correspondence Plo, Kouie

Email: plo.kouie@yahoo.fr

Purpose/objective The delay of Burkitt's lymphoma diagnosis in children results in poor prognosis. Despite this concern, children are admitted in emergency context in the pediatric ward facing the professionals to undertake clinical management. The report of 21 new cases of BL aims to discuss delayed diagnosis, treatment difficulties and prognosis.

Patients and methods From November 2011 to January 2013, 21 children 12 females, 9 males aged from 6 to 16 years were diagnosed as having Burkitt's lymphoma. Check-up encompassed blood common analyses, tumor needle aspiration smears, abdomen ultrasonography, lumbar puncture with cerebral spinal fluid cytology and chemistry analyses. BL staging was based on Murphy's. The treatment consisted in 4 or 6 cycles of cyclophosphamide: 600 mg/m² d1, d3, d5 d7; doxorubicin: 60 mg/m², d7, méthotrexate: (LP) and vincristin: 1.5 mg/m² d3 and prednisone: 100mg /m² d1-d7. CNS prophylaxis was achieved by intrathecal injection of méthotrexate 15mg/m² and prednisone 25mg weekly.

Results There were SI = 5 SII = 3 SIII = 8 SIV = 5. After chemotherapy: 35% complete remission, 65% of partial remission. Ten patients continued consolidation and maintenance treatment during six to 12 months. Five patients and three others having relapsed abandoned chemotherapy, three deceased of toxicity and severe infection. The expensive cost of antimetabolic drugs is one the difficulties that results in treatment abandon and parents 'abscond.

Conclusion Burkitt lymphoma is of the commonest malignancy in Ivorian children. Its diagnosis is delayed in most cases and this impacted the prognosis with the expensive cost of drugs in families with limited resources.

WORK- SHOP

Ragin, Camille

PARTNERING WITH RESEARCHERS FOR EFFECTIVE ADVOCACY

Camille Ragin*

Fox Chase Cancer Center and African Caribbean Cancer Consortium, United States

**Cancer
advocacy
masters training**
08h30–17h30
Wednesday
20 November
2013

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World-wide there is a disproportionate burden of cancer among populations of African ancestry. Populations that are most impacted by the disease continue to face public health challenges despite current strategies for cancer control and advances in health policy, research and advocacy. It is estimated that by 2030, cancer incidence in Africa and the Caribbean will increase by 87% and 66% respectively, in contrast to predicted increases by 55% and 26% in the United States and Europe. Cancer development and poor outcomes are attributed to biological factors and environmental factors (which include the physical, social, political and the economical environments).

Cancer advocates are often the most affected and aware of the local factors that impact the community's health, and researchers are formally trained in scientific investigation and inquiry. Thus, a successful cancer research-advocate partnership is one that promotes innovative team building and facilitates the exchange of ideas and sharing of resources to address cancer disparities. A cancer research-advocate partnership will promote tangible benefits for the local community and will help to inform policy. These types of partnerships are critical for reduction of the disparate and appreciable cancer burden in populations of African ancestry.

This presentation will highlight the features of a successful collaboration through partnering with researchers and will describe how this type of partnership will help to promote effective advocacy.

POSTER
162

Friday
22 November
2013

Raja, Priya

**THE ACCESS CONUNDRUM: CERVICAL CANCER SCREENING FOR
LOW-INCOME WOMEN IN SOUTH AFRICA**

Priya Raja*¹; Lynette Denny²; Olufunmilayo Olopade¹

¹University of Chicago Medical Center, United States; ²University of Cape Town/Groote Schuur Hospital, South Africa

Correspondence Raja, Priya

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Objective In the 21st century, many diseases are preventable, but they continue to plague economically deprived groups who cannot afford or access these services. For South Africa, the differential incidence and mortality rates of cervical cancer diagnoses, where Black and Coloured women have a higher likelihood of presenting with and dying from cervical cancer than White women, epitomizes this contradiction. In recognition of this trend, South Africa instituted a policy that entitles all South African women to limited free Pap smear screening. However, it has had little to no impact due to a lack of demand for the service. The aim of this study was to understand this phenomenon and to identify junctures at which low-income women were not able to access services for diagnosis and treatment of cervical cancer.

Methods A semi-structured qualitative interview tool (N=24) collected information about socio-demographic status, risk factors and comorbidities, and the trajectory of health service utilization from symptoms to treatment. The open-ended portion addressed awareness of cervical cancer and screening services, experiences with health service utilization, and emotional and social supports.

Results The challenges that low-income women face are primarily low knowledge of cervical cancer trajectory and prevention, especially with concepts such as risk and early action, low awareness of existing screening policies, lack of provider knowledge of standard of care diagnosis and treatment procedures for cervical cancer, and communication gaps between providers and patients, which resulted in delayed diagnosis.

Conclusions Enhancing the provider-patient interaction may have vast implications for both the uptake of screening services and early detection of malignant lesions.

WORK- SHOP

Ramondetta, Lois

PALLIATIVE CARE IN WOMEN WITH ADVANCED CERVIX CANCER

Lois Ramondetta*

MD Anderson Cancer Center, United States

Palliative care II

14h30–17h30

Friday

22 November

2013

Correspondence Ramondetta, Lois

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The growing knowledge about genomic and molecular targets is changing therapies for individuals with cancer. Although the technology is wonderful, many recognize the limitations...these out of body evaluations. At this point, the science lacks the ability to test a sufficient tumor sample, is unable to evaluate the body's immune environment, and is inadequate to investigate the effect of surrounding tissue on the aggressiveness of the tumor. Similarly, palliative care must also be targeted. In addition to recognizing patients with different tumors have dissimilar symptoms, targeted palliative care necessitates considering age, culture, education, social situation, and coping abilities in order to develop an individualized supportive care plan.

Cervix cancer is different not just in a genomic and molecular sense but also in the type of patient it affects, the way she copes, and the consequences of treatment on her body. Although women of any age or nationality may be affected, women of low socio-economic status and from underdeveloped countries bear the brunt of the morbidity and mortality. Many women who are diagnosed have not had pap smears whether for lack of time, lack of awareness of a personal risk, or lack of access to health care. As a result, the diagnosis of a cancer that should have been prevented may result in an additional burden of guilt, emotional and financial trauma for the patient, her family, her nurses and physicians, as well as for her country.

This session will review supportive care issues unique to cervical cancer patients.

KEY- NOTE

Ramondetta, Lois

PLACING PATIENTS' HUMANITY AT THE CENTER OF OUR CARE

Lois Ramondetta*

MD Anderson Cancer Center, United States

**Placing patients'
humanity
at the center of
our care**

08h00–08h30

Saturday
23 November

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My job is a blessing. Although there are many jobs in which people can transcend the superficial or commonplace interactions, the field of oncology allows connections through core struggles with life and death, health and disease, sexuality, spirituality, quality and quantity. As I have told my students, see each patient as your mother, your sister, or yourself. In order to do this, compassionate honesty must be at the core of our discussions.

The honesty applies not only to our patients but to us. It is all too easy to allow our responses to our patient's situation to become routine, rushed, and unthinking. As Franz Kafka wrote, "It is easier to write a prescription than to come to an understanding with the patient." It is easier to offer third and fourth line therapies with little efficacy than to discuss end of life planning. It is easier to write a prescription for "depression" than to discuss the root cause of the existential crisis. And it is easier to design a trial to measure improved progression free survival, even if it is in the quantity of weeks, than it is to measure outcome in terms of peace of mind, forgiveness, or spiritual well-being.

In this age of molecular and genomic therapy, the targets and agents are potentially endless. We must be careful to incorporate meaningful outcomes, potentially yet undiscovered patient reported outcomes, requiring inventive measures, into our care even if this requires substantial innovative thinking and risk.

Saturday
23 November
2013

Solomon Raphael*¹; Adogu Ogere Ibrahim²; Sani Malami³

¹Aminu Kano Teaching Hospital (AKTH), Nigeria; ²Abubakar Tafawa Balewa University Teaching Hospital, Nigeria; ³Bayero University Kano, Nigeria

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Objective Colorectal Cancer in Nigeria, from available reports, is increasing in incidence in the general population and particularly among the young people less than 40 years of age. This retrospective study is aimed at assessing the histological pattern of this GIT malignancy among young people in Nigeria's most populous state.

Methods Biodata (age and sex), sites and histological type of CRC cases diagnosed between January, 2001 and December, 2010 in a tertiary health institution in Kano, North-western Nigeria were obtained from laboratory records and case notes. All the histologic slides were retrieved and the diagnoses reconfirmed. This constituted the materials for this study.

Results A total of 101 cases of colorectal cancers were diagnosed among young people, comprising 38.9% of all the cases in the study period. Fifty eight (57.4%) were males and forty three (42.6%) were females giving a male to female ratio of 1.3:1. Their ages ranged from 17 to 40 years with a mean of 30.1(standard deviation 6.2) years and peaked in the late twenties (26–30 years) with 33 cases (32.7%). The rectum was the most common site (56.4%), while the transverse colon was the least affected (1.9%). Adenocarcinomas were the most frequent histologic type (98%) with the mucinous subtype accounting for nearly a third of the cases (30.7%). A case each of lymphoma and kaposiform haemangioendothelioma were also recorded.

Conclusion Colorectal cancer, unlike hitherto documented is common in young adult Nigerians. In the study population, there is male preponderance, peaking in the 26 to 30 years age group and mostly adenocarcinomas with a third being mucinous malignancies.

Saturday
23 November
2013

Raphela, France

**OCCUPATIONAL EXPOSURE TO ELECTROMAGNETIC FIELDS IN
A HEAVY ENGINEERING CO₂ WELDING INDUSTRY IN
THE MANGAUNG METROPOLITAN MUNICIPALITY**

France Raphela*
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The assessment of occupational exposure to extremely low frequency (ELF) electromagnetic fields amongst 88 randomly selected welders, fitters and office workers in a South African welding industry was conducted. The median ages of fitters and welders were 32 and 33 years, respectively, and 37 years for office workers. Measurements of magnetic and electric fields were taken at three workstations (workshop A, workshop B and 'offices') using the trifield and digital electric field meters respectively and time weighted average (TWA) exposure levels at distances of 1, 2 and 3 m were determined.

The median TWAs of magnetic fields at 1 m in workshops A and B were 7.44 μT and 7.56 μT , respectively; and 0.15 μT in the offices. The values for the peak magnetic fields measured at a distance of 1 m in workshop A and workshop B, respectively, were 9.40 μT and 9.38 μT ; and that in the office was 0.2 μT . Electric fields were relatively low at all three workstations, viz. -15.50 and -13.50 volts per meter (v/m) in workshops A and B, respectively ($p=0.02$), and 1.80 v/m in 'offices.'

This study suggests that excessive exposure to ELF EMFs may increase the risk of developing chronic diseases such as leukaemia, brain cancer and breast cancer among highly exposed workers such as welders and fitters. It is necessary to implement safety measures to reduce exposure to electromagnetic fields.

POSTER 165

Rawlinson, Fiona

THE DEVELOPMENT OF PALLIATIVE CARE E-LEARNING MODULES FOR CANCER IN SUB SAHARAN AFRICA

Fiona Rawlinson*
Cardiff University, United Kingdom

Friday
22 November
2013

Correspondence Rawlinson, Fiona
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Introduction The burden of cancer continues challenging for sub-Saharan Africa. Although new treatments continue to develop, variable availability and competing priorities result in significant impact on quality of life. Countries vary in their development of palliative care services. Issues affecting provision of palliative care across the continent are diverse and include provision of medication, services, training and education.¹

Using online technology reflects the increasing interest in online education and practical consideration of increasing proportion of smart phone users. Online education poses its own challenges in terms of accessibility and interactive potential.

Objective The object of the education package is to supplement the skills and competence of multidisciplinary palliative care providers regarding the specialty area of cancer and to support the optimisation of care.²

Delivery The content comprises sixteen freely available independent modules covering the management of pain and other symptoms, psychosocial and spiritual issues and end of life care. Additional modules cover aetiology and pathology of cancer and the role of palliative chemotherapy, radiotherapy and surgery.

The format of each module is filmed material interspersed with factual slides. The filmed material has been collected in UK and Africa and includes patient stories, interviews and education sessions delivered by healthcare professionals and palliative care specialists. Learner interaction and engagement is facilitated by cues for reflective learning and quizzes. On-going evaluation is used and longitudinal evaluation over time following completion of the module is offered to enhance embedding of the knowledge and skills.

References

1. African Palliative Care Association: *Palliative care: A Handbook of Palliative Care in Africa* (2010)
2. Ryan A, Uliczak M, Wee B, Young D. *Developing e-learning in palliative care education in sub-Saharan Africa*. 2012 African Palliative Care Asc

Rayne, Sarah

**BREAST CANCER IN VERY YOUNG WOMEN IN SOUTH AFRICA:
TUMOUR BIOLOGY AND PATIENTS' CHOICES OVER THE LAST
DECADE (2000–2010) FROM A SINGLE MULTI-DISCIPLINARY
BREAST UNIT**

Saturday
23 November
2013

Sarah Rayne*; Claire Mitchell; Carol Ann Benn
University of the Witwatersrand, South Africa

Correspondence Rayne, Sarah
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Objectives Breast cancer is the most common cancer amongst women in South Africa and whilst more frequent with increased age it can also occur in much younger women although poorly described in this group, particularly in Africa.

Methods All patients under 35 years presenting between January 2000 and December 2010 with an invasive or in situ breast adenocarcinoma were included in this observational retrospective study. Data from radiology and histology was recorded in addition to demographics, risk factors and management details.

Results 141 very young women were diagnosed with breast cancer over the 10 year period (3.8% of all breast cancers). 15 with insufficient data and one 8-year old with a juvenile myoepitheloid carcinoma were excluded.

The median age was 32 years (range=18–34 years). The only significant risk factor was family history in 46.8% (n=59) of patients (14.3% in a first degree relative and 32.8% in only a second degree relative). Only two patients were known carriers of a BRCA gene mutation.

Histological diagnosis was by core biopsy in 75% and surgical biopsy in 25%. Most tumours were poorly differentiated (45.6%) or moderately differentiated (43.2%) and hormone-receptor positive in 64.9% and HER2 positive in 16.5%. Triple negative breast cancer was found in 27.5%. Only 23.2% had early stage cancer and most patients (60%) presented with locally advanced (stage 2 and 3) disease.

Choice of surgical management was unrelated to stage of disease: breast conserving surgery performed in 55.6% of early disease and 57.1% of locally advanced patients. 37% of mastectomy patients had a contralateral prophylactic mastectomy and 76% had reconstruction.

Conclusion Very young women in South Africa with breast cancer tend to present with later stage disease and higher grade tumours and commonly have a positive family history. Women did not favour breast-conserving surgery reflecting patient choice concerning reconstruction and contralateral prophylactic mastectomy.

WORK- SHOP

Rayne, Sarah

YOUNG AND AGGRESSIVE? A COMPARATIVE STUDY OF TUMOUR CHARACTERISTICS IN RACIAL GROUPS OF BREAST CANCER PATIENTS IN JOHANNESBURG

Free
communication
of abstracts II
14h30–17h30
Friday
22 November
2013

Sarah Rayne*; Elize Cloete; Carol Ann Benn
University of the Witwatersrand, South Africa

Correspondence Rayne, Sarah
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Objective Racial disparity in breast cancer survival persists globally and a belief exists that black women tend to have more advanced, more aggressive disease. We aim to determine whether the tumour biology varies significantly with race.

Methods This was a review over a one-year period of consecutive patients diagnosed with an invasive or in-situ breast malignancy in an uninsured population. Data from radiological reports and histology was recorded in addition to demographics including age and race. Tumour characteristics between races were compared, particularly with reference to black patients.

Results 334 patients had a new diagnosis of breast malignancy. 309 patients had an adenocarcinoma including 292 invasive ductal carcinomas, 12 lobular carcinomas and 13 patients had ductal carcinoma in situ. Other malignancies were 5 lymphoma and 7 sarcoma patients. The median age at diagnosis was 55. 65.3% (218) of patients presenting with a breast malignancy were black. The remaining 116 patients were white 17.1%, Asian (6.9%), coloured (5.7%) and unknown (5.1%) In a comparison of invasive adenocarcinoma patients with known race only (n=314), 86 patients with malignancy were below 45 years: 32.8% of black patients and 18.7% of non-black patients (p=0.0378). 38.9% (84 of 218) black patients and 29.2% (28 of 96) non-black patients had a grade 3 tumour (p=0.1789). Overexpression of HER2 receptors was found in 63 (20.1%) of all invasive adenocarcinomas; in 19.3% (n=42) of black patients and 21.9% (n=21) of non-black patients (p=0.7264). 52 (16.6%) patients were diagnosed with triple negative malignancies including 17.0% of black patients and 15.6% non-black (p=1.000).

Conclusion Our experience suggests there is a relationship between race and a younger age at presentation, but our evidence does not support a link between race and biologically aggressive tumours, with none of the three surrogate markers for aggression significantly more common in our black patients.

WORK- SHOP

Reams, R Renee

SNP IN YORUBA POPULATION REVEALS ABCD3 IMPORTANT IN PROSTATE CANCER

**Free
communication
of abstracts II**
14h30–17h30
Friday
22 November
2013

R Renee Reams*¹; Jacqueline Jones²; Honghe Wang³; Kalari Krishna⁴; Clayton Yates⁵

¹Florida A&M University, United States; ²Dept Of Biology and Center for Cancer Research, Tuskegee University, Tuskegee, Alabama, United States;

³Dept of Biology, Tuskegee University, Tuskegee AI, United States; ⁴Medical Bioinformatics Mayo Clinic, United States; ⁵Dept of Biology, Tuskegee University, Tuskegee, AI, United States

Correspondence Reams, R Renee

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Objective In a previous cDNA microarray study, we used list of differentially expressed genes derived from CaP tumors in Blacks/Whites, as a probe to scan for associated SNP variants in healthy Yoruba population. Results revealed that ABCD3 gene is important in prostate cancer. This was the first report to show that ABCD3 has a role in prostate cancer. The ABCD3 gene, a member of the ABC (ATP-Binding Cassette) family encodes the peroxisomal membrane protein, PMP70. There are four known human peroxisome half ABC transporters: ALDP, ALDR, PMP70 and P70R, which are encoded by ABCD1, ABCD2, ABDC3 and ABCD4, respectively. Mutations in ABCD1 cause X-linked Adrenoleukodystrophy because the role of ABCD3 in prostate cancer is still unclear; this study investigated the association of ABCD3 expression with pathological features of human prostate cancer disease progression.

Methods Using immunohistochemistry, we stained tissue microarrays with representative tissues from 92 cases of adenocarcinoma, two prostate transitional cell carcinoma, 12 prostate adjacent normal tissue and 8 normal prostate, tissues were stained with a monoclonal antibody against ABCD3 and scored for percentage of visible staining.

Results Increased ABCD3 expression correlated positively with increasing Gleason score ($p=0.0094$), age ($p=0.0014$) and pathology grade ($p=0.0007$). Silencing ABCD3 in the metastatic cell line, MDA-PCa-2b cells resulted in decreased cell proliferation. Silencing ABCD3 sensitized cells to killing by paclitaxel.

Conclusions Taken together these findings suggest a role for ABCD3 in prostate carcinogenesis and progression.

WORK- SHOP

Reams, R Renee

TEACHING STRATEGIES AND EFFECTIVE TRAINING

R Renee Reams*

Florida A&M University, United States

**Cancer
advocacy
masters training**
08h30–17h30
Wednesday
20 November
2013

Correspondence Reams, R Renee
Email: reneereams.famu@gmail.com

Background Congratulations, you have just completed the Master Training in African Cancer Advocacy, and are now poised to train others.

Purpose The purpose of this presentation is to introduce you to a variety of teaching strategies that facilitate learning. Your first goal is to decide what you want your students to be able to do, once trained. Good teaching should be about using strategies that focus on learning and not solely on teacher presentation. The end result of teaching is learning and application of learned information. Once you have set student-centered goals, and then prepare your content or lectures.

Methods Delivery of content should utilize a variety of methods which can include lecture (5%) followed by engagement of trainees in group discussion (50%), role-playing (30%), reading aloud (10%); individual followed by group quizzes (90%). The percentages in the preceding sentence are an indication of average learning and retention rates; for example, students learn and retain only 5% from lectures but retain 90% when they teach others via group quizzes. Hence, the most effective teaching puts the responsibility of learning on the students by requiring them to read in advance so that they are prepared to engage in discussions or group activities. The more actively engaged the learner is, the more the learner retains.

Conclusion The most effective teaching strategy is to start with the end goal in mind, what do I want my students to be able to do when they complete this training.

WORK- SHOP

Rebbeck, Timothy

TRANSLATIONAL RESEARCH IN PROSTATE CANCER: MOVING FROM BENCH TO BEDSIDE

**Prostate
cancer**

14h30–17h30

Saturday

23 November

2013

Timothy Rebbeck*

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Carcinoma of the prostate (CaP) is frequently detected at an early stage via screening, which may lead to improved survival. However, many screened detected tumors may have a relatively benign course and do not require treatment. While there is much debate over the clinical significance of tumors detected by screening, even tumors with an unfavorable prognosis may not lead to significant morbidity or mortality, particularly in older men. Randomized studies showed PSA screening had either no mortality benefit or a mortality benefit with an unacceptable number of men requiring treatment in order to achieve this benefit. Unnecessary treatments may result in morbidity that could be avoided if tumors destined to an indolent course could be identified. The Preventive Services Task Force has recently recommended against CaP screening by PSA. Thus, the ability to identify factors that improve the prediction of CaP outcomes could serve an important role in clinical decision making when a CaP is diagnosed. This knowledge motivates the development of models that can predict prostate cancer outcomes and guide treatment decisions. Existing nomograms for predicting outcomes or treatment decisions have been developed that assign risks based on diagnostic PSA, Gleason sum, surgical margin status, and presence or absence of extracapsular extension, lymph node involvement, and seminal vesicle invasion.

Expansion of these existing models to increase accuracy and precision for patients is needed, particularly for men of African descent and men in low resource settings. Candidates for inclusion in an expanded set of models include demographic, genetic, socioeconomic, behavioral and neighborhood factors. This presentation will outline the existing approaches to prostate cancer prognostic and treatment decision models, potential for improvement of these models, and their potential for application in low resource settings.

WORK- SHOP

Richter, Karin

CERVICAL CANCER SCREENING USING THE APTIMA® HPV E6/E7 MRNA ON PATIENT SELF-COLLECTED TAMPON SPECIMENS IN GAUTENG, SOUTH AFRICA

BIG CAT

grants I

09h00–10h30

Thursday

21 November

2013

Karin Richter*¹; Greta Dreyer²

¹University of Pretoria/National Health Laboratory Service, South Africa;

²Department of Obstetrics and Gynaecology, University of Pretoria, South Africa

Correspondence Richter, Karin

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Introduction In South Africa the prevalence of cervical cancer is alarmingly high and presentation is late. Underlying reasons include opportunistic and variably implemented cytology-based screening, limited resources and access to health care and poor control of the HIV epidemic. Screening programmes can be improved by incorporation of new generation HPV-based assays like the APTIMA® HPV (AHPV) E6/E7 mRNA test. Patient self-collection of screening samples can increase the acceptability and screening coverage and decrease the burden on the health infrastructure. The aim of this study was to validate a low cost patient self-collection method using tampons and PBS buffer and to use this method to determine the prevalence of HPV E6/E7 mRNA expression in a sample of the general population.

Method Patient self-collection with tampon specimens (n=58) were compared to the FDA approved physician collection method for the AHPV and conventional cytology. Women (n=480) attending six public sector clinics in Gauteng were also tested with AHPV and conventional cytology.

Results Of the 54 validation specimens with valid results on both methods the concordance rate was 94.4% with a Kappa value of 0.89 (95% CI 0.76–1.01) which indicated very good agreement. Three more specimens tested positive on the tampon samples. In the general population the positivity rates for AHPV, and cytology HSIL+ were 34.4% (165/480) and 8.5% (41/480) respectively.

Conclusion AHPV testing on patient-collected tampon specimens correlates well with physician collected specimens. Screening by using the AHPV assay on tampon specimens will identify approximately one out of every three women for follow up.

WORK- SHOP

Rosen, Barry

IMPLEMENTATION OF RADICAL HYSTERECTOMY SURGERY IN WESTERN KENYA

**Free
communication
of abstracts II**
14h30–17h30

Friday

22 November
2013

Barry Rosen*¹; Jason Dodge¹; Christopher Giede²; Marcus Bernardini¹;
Sarah Sinasac¹; Laurie Elit³

¹University of Toronto, Canada; ²University of Saskatchewan, Canada;

³McMaster University, Canada

Correspondence Rosen, Barry

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Background Surgical cure rates for early stage cancers are high. In low resource countries where cervix cancer (CC) mortality is high there has been little emphasis on screening. In the last 10 years screening using VIA has been shown to be reliable and cost effective. Screening programs are used to detect and treat pre-invasive disease and they also identify early stage cancers that can be cured with radical hysterectomy (RH). We describe a program in Kenya where two surgeons completed surgical training for RH and have successfully implemented this surgical procedure.

Methods Training modules for RH were developed consisting of pre and post-tests, power point and video presentations of RH, node dissection and complications including bladder, ureter and vessel injuries. A detailed process of evaluation was used for each surgeon following each surgery.

Results Two Kenyan gynaecologists completed all modules and together with a mentor performed 6 radical hysterectomies. The Kenyans completed a 7th RH with the mentor in the room but not scrubbed. Their surgical skills and their understanding of RH progressed over the training period. Since completing the training in 2010 the two gynaecologists have completed a total of 82 radical hysterectomies with a similar morbidity reported in high resource countries.

Discussion Surgical treatment of early stage CC is successful in high resource countries. In low resource countries where radiation treatment is limited, surgery can offer CC patients a cure. With growing control of HIV, malaria and TB, African countries are investing in early cervix cancer detection with VIA. These programs need to be linked to programs that offer CC treatment. Surgery is an essential part of the treatment of stage 1 CC yet there are few oncologic trained surgeons in Kenya. This program demonstrates a strategy to train surgeons in the surgical management of cervix cancer. This education model can be applied to others cancer sites.

WORK- SHOP

**Free
communication
of abstracts II**
14h30–17h30
Friday
22 November
2013

Saba, Joseph

LESSONS LEARNED FROM 20 HPV VACCINATION PILOT PROGRAMMES IN 13 LOW AND MIDDLE INCOME COUNTRIES

Joseph Saba*¹; Mike Chirenje*²; Henrietta Bosa*³; Mariana Rodrigues⁴; Marie-Hélène Besson¹; Joel Ladne⁵

¹Axios International, France; ²University of Zimbabwe, Zimbabwe; ³Axios International, Uganda; ⁴Axios International, United States; ⁵Epidemiology and Public Health Department, Rouen University Hospital, Hôpital Charles Nicolle, France

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Objective To identify lessons learned and key operational success factors from 20 HPV vaccination pilot programmes in 13 low and middle-income countries through the GARDASIL Access Program (GAP).

Methods HPV vaccines were donated to organizations or institutions in low and middle-income countries after the approval of an application detailing all implementation plans. Projects were entirely implemented and managed by local organizations or institutions. After completion of the vaccination campaign (3 doses), participants provided a final report with data on doses administered, strategies utilized and lessons learned. In addition, qualitative and quantitative data were gathered via site visits and online and telephone surveys in the following areas: vaccination adherence and coverage, delivery strategy, recruitment and consent, human resources, communications, supply chain and monitoring and evaluation.

Results A total of 20 programmes were included with a total of 237,939 girls vaccinated. Global vaccination adherence was 91.6%. Five programs used school-based delivery models, four used health facility-based models and 11 used mixed models (schools and health facilities). Qualitative data showed that a school-based approach appeared to support maximum coverage among the 9–13 age group and lessened loss to follow-up. Insights showed that sensitization messages should focus on cervical cancer first to help establish the problem, high-level stakeholders should be used to raise credibility and trust and vaccination efforts can help increase uptake of screening services and vice versa.

Conclusions Results suggest that scaling-up of HPV vaccination programmes is feasible in middle and low-income countries. Number of girls reached, involvement of girls, parents and communities in campaigns were high. Findings from the study will help guide the implementation of future nationwide HPV vaccination programmes and related cervical cancer prevention policies.

Saturday
23 November
2013

Mateus Kambale Sahani*; Paluku Hamuli Roger
Agir Ensemble and Hope Medical Center, Democratic Republic of Congo

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Background and justification Cervical cancer is the most common cancer in DRC and the first cause of death in the country. As the service is not available in almost whole the country, people are not aware of it and arrive at the hospital at the very advanced stage of the disease.

Methodology We have initiated a colposcopy center in Goma city, east of the country which is the first in this part and we have proceeded to raising awareness to let women being informed of the relevance of this service. This study is prospective and descriptive for 52 women screened at Hope Medical Center.

Results In 2 months, we have screened 52 women among them 1 has advanced cervical cancer (1.92%), 3 have carcinoma in situ (5.77%), 3 have LSIL (5.77%) and 5 have HSIL (9.62%) and 40 have negative results (76.92%). Among all the women screened, only 10 were totally healthy (19.23%), 42 consulted because they had one or more signs and symptoms (80.77%). The most common sign that alarm women for colposcopy is hypogastric pain (29/42, 69.05%) and the second is dysparenia (8/42, 19.05%). All women screened positive have accepted to be treated.

Conclusion Awareness program is important for adherence of women to colposcopy program; we should publish a list of warning signs to allow women coming to colposcopy clinic very early. Colposcopy will allow women to be diagnosed very early.

PLENARY

Sankaranarayanan, Rengaswamy **BURDEN OF GYNECOLOGICAL CANCERS IN AFRICA**

Rengaswamy Sankaranarayanan*; Richard Muwonge
International Agency for Research on Cancer, France

Gynaecological cancers

09h10–10h30

Sunday

24 November

2013

Correspondence Sankaranarayanan, Rengaswamy
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The pattern and burden of breast, cervix, endometrium and ovarian cancers in Africa are considered in this presentation. Since breast cancer contributes an important burden of women's cancers, it is worthwhile to address breast cancer in this context. These four cancers account for 194 400 new cases, 116 100 deaths and 567 800 prevalent cases around 2008. Breast cancer accounted for 92 600 cases, 49 990 deaths and 302 300 prevalent cases while cervix cancer accounted for 80 400 new cases, 53 300 deaths and 206 400 prevalent cases. Cervix cancer (75 100 cases) predominated over breast cancer (64 600 cases) in sub-Saharan Africa whereas in North Africa breast cancer cases (28 000 cases) exceeded cervical cancers (5 300 cases). Estimations of cancer burden in Africa suffer from substantial uncertainties in view of the very few population-based cancer information systems across the continent and most countries lacking them. Even with all the data limitations, it is clear that both breast and cervical cancers rates are increasing in many African countries. For instance, data from population-based cancer registries in Harare, Zimbabwe and Kyodondo county, Uganda indicate that incidence rates of both breast and cervical cancers have shown more than 3% annual increases. More than 80% of the patients with these cancers present in advanced stages with poor survival and cure prospects given the inadequate development and access to treatment services in most of Africa. Investments in health systems are vital to reverse the poor outlook from gynecological cancers in Africa.

WORK- SHOP

Sankaranarayanan, Rengaswamy

COLD COAGULATION IN THE TREATMENT OF CERVICAL NEOPLASIA

Rengaswamy Sankaranarayanan*

International Agency for Research on Cancer, France

**Cervical
cancer**

prevention I

09h00–10h30

Thursday

21 November

2013

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Cold coagulation (“thermo-coagulation”) is the easiest of all ablative treatments for ectocervical high-grade cervical intraepithelial neoplasia (CIN 2 and CIN 3 lesions) involving three-fourths or less of the transformation zone (TZ). It uses temperatures around 100°C leading to epithelial destruction to a depth of 4 mm after 20 seconds of application. It can be provided by a variety of health care personnel including general doctors, nurses, midwives and auxiliary health workers who can be trained in short sessions. The equipment includes an easily portable Semm electrical machine (4KGs in weight) that can heat reusable flat metallic probes of 1 cm diameter up to 120°C. Local anesthesia is not always used for cold coagulation. After preparing the patient and delineating the TZ with 5% acetic acid followed by Lugol’s iodine, the cold coagulator is activated and a flat metallic probe heated to 100°C, which is applied on the cervix for 20–45 seconds; multiple overlapping applications may be used to cover the entire TZ adequately. Women may have sexual intercourse after cold coagulation and the vaginal discharge is minimal. Cold coagulation offers several advantages over cryotherapy in terms of easy procedure, less treatment time, rapid treatment turn over, more patient comfort, easy portability of equipment, no need for gas refill, less vaginal discharge, fewer side-effects and complications, yet comparable cure rates. It can be used in single visit ‘screen and treat’ and ‘see and treat’ contexts. Cure rates exceed 96% for CIN1; 94% for CIN2; and 90% for CIN3.

MEET THE EXPERTS

Sankaranarayanan, Rengaswamy

WHAT DO WE KNOW ABOUT THE ROLE OF LESS THAN 3-DOSES OF HPV VACCINATION IN CERVICAL CANCER PREVENTION

Rengaswamy Sankaranarayanan*

International Agency for Research on Cancer, France

Vaccine implementation

07h00–07h50

Sunday

24 November
2013

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Whether fewer than 3-doses are effective in preventing cervical neoplasia is currently being investigated given the potential cost savings, ease of administration/delivery logistics and scaling-up of vaccination. A randomized trial involving 824 subjects in Canada comparing the HPV-16 and -18 antibody levels following a 2-dose (M0, 6) and 3-dose (M0, 2, 6) schedule of quadrivalent HPV vaccine showed that the HPV-16 and -18 antibody responses to 2 doses in 9–13 year-old girls were non-inferior to the 3-doses in 16–26 year-old women. In a multicentre randomized trial involving 960 subjects, 2-doses of bivalent vaccine delivered at 0 and 6 months to 9–14 year-old girls was non-inferior to the 3 doses delivered at 0, 1 and 6 months in 15–25 year-old women, as measured by HPV-16 and -18 antibodies at 1 and 18 months after the last vaccination. Results from a Costa Rican study suggested that 1- or 2-doses of HPV vaccine are as protective as 3 doses against incident HPV-16 or -18 infections that persisted for 1 year and 3-year results are anticipated soon. In a large Indian study involving some 17,000 girls the immunogenicity of 2-doses was non-inferior to that of 3-doses and immunogenicity following a single dose was inferior to that of 3-doses. These girls are under long-term follow-up. Current results suggest that the immunogenicity of 2-doses of HPV vaccine is non-inferior to that of 3-doses. However long-term results on the durability of protection offered against persistent infection and cervical neoplasia are needed.

POSTER 168

Friday
22 November
2013

Sarah, Nandaula

A REVIEW OF TREATMENT OUTCOMES OF KAPOSI'S SARCOMA IN CHILDREN ATTENDING HOSPICE AFRICA UGANDA AND ITS IMPLICATIONS FOR THE PROVISION OF PALLIATIVE CARE

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Objectives To understand different cancer and treatment in relation to palliative care. To know about other infectious illnesses that affect children.

Background Kaposi's sarcoma (KS) is one of the two major malignancies associated with HIV infection in African children. However, there is limited data on treatment outcomes of HIV infected children with KS. Within the provision of palliative care, the treatment of malignancies such as KS and the palliative of symptoms associated with it are important aspects of care.

Methodology A review of patient's notes of children with KS at Hospice Africa Uganda was carried out. The case notes of ten pediatric with KS cases were reviewed. And this was done consequently.

Results Of the children reviewed, 6 (60%) were male and 4 (40%) female, the gender ration therefore being 3:2. The age of the children ranged from 3 to 15 years with the mean age being 9.4 years. In reviewing their histology, the most common histological feature was lymphadenopathic KS. Five of the children were receiving treatment in terms of both chemotherapy and ARVs whereas five of the children were unable to start either treatment. Out of the five children receiving chemotherapy and ARVs, despite the clinical and immunological improvement, three of them had experienced a relapse of their KS, one died and the other responded well to treatment.

Conclusion Although this review is small in scale, it does seem to suggest that despite combination of therapy with chemotherapy and ARVs, re occurrence of KS is common among them. Children commonly get lymphadenopathic KS and this is more common in the older children. Within the provision of palliative care, this has implications for both management of KS but also for the palliation of symptoms associated with both treatments for the disease as it progresses. Bigger studies are recommended in the pediatric population to study this in more depth.

WORK- SHOP

**MD Anderson
global initiative
for cancer care**
14h30–17h30
Thursday
21 November
2013

Satcher, Robert

THE USE OF EHEALTH FOR CANCER CARE DELIVERY AT A DISTANCE

Robert Satcher*

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The use of information and communication technology to support the delivery of health care services at a distance while not new is rapidly coming of age. As the primary diagnostic and treatment modalities for oncology care have become more standardized, the opportunity for implementing new patient care service delivery models has become economically viable. Many countries now have the infrastructure and technology to implement specialized cancer care domestically. The main barrier remaining has been providing specialists to patients who are often located in remote areas. There are many potential patients who cannot afford the combined costs of international travel and medical expenses, which would be able to afford care if it were available locally or regionally in their country. eHealth technology is the answer for this shortfall. Because of the complex and technical nature of diagnostic modalities, and the need to guarantee precise quality control of cancer treatments, traditional models required assembling all of the infrastructure, physical plant, support personnel, and specialists in one location. MDACC (MD Anderson Cancer Center) has recently become interested in using eHealth modalities to develop new models for decentralizing cancer care delivery. The pilot strategy for MDACC will accomplish several goals including:

- To extend expert-based multidisciplinary oncology patient encounters regionally and internationally.
- To implement integrated medical, surgical, and radiological cancer care.
- To enroll patients in clinical research protocols.

Several other oncology centers have successfully implemented more limited parts of this strategy for selected diseases. The potential benefits of establishing a comprehensive eHealth capability are numerous but most importantly include cost savings and improving patient access to quality cancer care.

WORK- SHOP

Sayed, Shahin

BREAST CANCER: IMPLEMENTING THE GUIDELINES WITH ILLUSTRATIVE EXAMPLES

Pathology I
11h00–13h00
Friday
22 November
2013

Shahin Sayed*¹; Zahir Moloo¹; Peter Bird²; Ronald Wasike²; Mansoor Saleh⁴

¹Aga Khan University Hospital, Kenya; ²AIC Kijabe Hospital, Kenya;

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As the demand for improved breast healthcare escalates globally, so does the expectation of comprehensive breast pathology service that encompasses accurate testing of predictive and prognostic markers in breast cancer and the active participation of the pathologist in a multidisciplinary team.

Pathology guidelines have been established to minimize the variability in breast cancer pathology reporting worldwide and adopt a standardized methodology and terminology. Guidelines recommended by the American Society of Clinical Oncology (ASCO)/College of American Pathologists (CAP) for Estrogen/Progesterone receptors and HER2 testing have yet to be adopted in many parts of Africa.

Guideline implementation needs to address training of personnel, a multidisciplinary approach, specimen handling, accuracy and completeness of pathology reporting, the analytic testing of samples, and ensuring that adequate quality control procedures are put in place.

This presentation will highlight the opportunities and challenges in the implementation of guidelines, lessons learnt and possible solutions with illustrative examples of our experience from the Aga Khan University Hospital in Nairobi, Kenya.

Sayed, Shahin

CONCORDANCE OF HISTOLOGIC GRADE, LYMPHOVASCULAR
INVASION AND BIOMARKERS IN BREAST CANCER ON PAIRED CORE
BIOPSY AND DEFINITIVE SURGICAL SPECIMENS

Sunday
24 November
2013

Shahin Sayed*¹; Zahir Moloo*¹; Peter Bird²; Ronald Wasike¹; Sudhir Vinayak¹;
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Birmingham, Alabama, United States

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Objectives We analyzed the concordance of well-established prognostic and predictive markers in breast cancer including tumour grade, lymphovascular invasion (LVI) and estrogen receptor (ER), progesterone receptor (PR) and HER2 receptor status between core biopsy and definitive surgical specimen.

Methods Breast cancer cases (N=110) accrued between September 2011 and May 2013 with paired core and definitive surgical specimens were analyzed at the Pathology Department, Aga Khan University Hospital, Nairobi. Diagnostic cores were graded according to the modified Bloom Richardson system and the presence/absence of LVI noted. ER/PR/HER2 analysis was performed on the DAKO automated platform and interpreted according to the ASCO/CAP guidelines. The process was repeated in the subsequent definitive surgical specimen. All HER2 equivocal cases were further confirmed by FISH. Percentage concordance and kappa statistics was used to analyze the level of agreement between the two specimen types for the various parameters.

Results There was overall 47% concordance of grading and LVI presence /absence between core biopsy and definitive surgical specimen. The concordance of ER and PR between core and definitive specimen was 95% and 97 % respectively. There was 100% concordance of HER2 for both positive and negative results. The concordance for HER2 equivocal was <20%.

Conclusions Nuclear grade of the tumour on the core biopsy was found to be a better predictor of overall grade of the tumour. Core biopsy is a reliable specimen for ER and PR analysis however; we recommend that all equivocal HER2 IHC be repeated in the definitive surgical specimen. If discrepant, specimen should be subjected to FISH.

POSTER 170

Sayed, Shahin

A NOVEL APPROACH TO BREAST CANCER SCREENING CAMPS

Shahin Sayed*; Zahir Moloo; Anderson Mutuiri; Rose Ndumia; Joshua Chege
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Sunday
24 November
2013

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Objectives To pilot a novel multidisciplinary team approach in the screening of breast cancer in two ethnically diverse communities in Kenya. We share our experience on the opportunities and challenges faced and the lessons learnt.

Methods Two geographically diverse sites were identified and targeted for the screening camp. A multidisciplinary team from Aga Khan University Hospital, Nairobi, comprising medical doctors, pathologists, radiologists, surgeons, and nurses worked with local collaborators and a number of volunteers from both the Breast Cancer Awareness Support Group (BCASG), and the Breast Cancer Survivors groups. Public awareness was created over three weeks prior to camp, through the use of posters, flyers, radio talk shows and recorded jingles. Women were taken through registration, counseling self-examination methods, palpating prosthesis with different size lumps and clinical examination. All women with palpable lumps further underwent ultrasound examination and onsite Fine Needle Aspirations Cytology (FNAC) with interpretation. Lesions which were clinically and radiologically suspicious were core biopsied. Patients with abnormal results were referred to their physicians for follow up. In addition, local surgeons were trained on correct mastectomy and axillary dissection on previously diagnosed breast cancer patients.

Results A total of 1052 women were screened in the two camps, 100 breast ultrasounds, 75 FNAC and 5 core biopsies were performed on suspicious lesions. A total of 7 new cancers were identified and referred for further management.

Conclusion Multidisciplinary team approach in screening of breast cancer improves quality of care, and can be a platform for local building capacity building. Cultural sensitivity is crucial for successful outcomes.

WORK- SHOP

**MD Anderson
global initiative
for cancer care**
14h30–17h30
Thursday
21 November
2013

Schmeler, Kathleen

A LOW-COST OPTICAL IMAGING TOOL FOR CERVICAL CANCER PREVENTION

Kathleen Schmeler*¹; Benjamin Grant²; Tim Quang²;
Rebecca Richards-Kortum²

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Cervical cancer is a leading cause of cancer and cancer-related deaths among women worldwide, with more than 85% of cases occurring in low- and middle-income countries (LMICs). This disparity is largely due to a lack of effective screening and secondary cervical cancer prevention programs in LMICs. Although effective, current approaches for secondary cervical cancer prevention such as colposcopy and cervical biopsies are expensive, cumbersome, and require high-level infrastructure and well-trained personnel. There is therefore a significant need for simpler, more cost effective cervical cancer prevention methods.

To address this unmet need, a group at Rice University has developed a high-resolution micro-endoscope (HRME), a low-cost, innovative technique to evaluate epithelial cell morphology *in situ*. Morphologic features typically evaluated by pathologists including nuclear crowding, pleomorphism, and nuclear-to-cytoplasm (N/C) ratio are assessed *in vivo* in real-time. HRME imaging allows for point-of-care detection of high-grade precancerous cervical lesions without a biopsy being performed. Precancerous lesions can therefore be diagnosed and treated in a single visit (“See & Treat”). This single-visit approach reduces the need for high-quality colposcopy and pathology, resources often unavailable in LMICs. Rice University is currently working in collaboration with MD Anderson and their Sister Institutions to study and further develop this technology.

Preliminary data from Brazil, China and Botswana suggest that HRME has similar sensitivity yet improved specificity over visual inspection with acetic acid (VIA) and colposcopy, potentially decreasing false positive rates and leading to more accurate identification of patients requiring treatment. Rice University and MD Anderson are interested in collaborating with groups in Africa to further study and develop this technology, with the ultimate goal of decreasing the incidence of cervical cancer globally.

WORK- SHOP

Schonfeld, Sara

HEMATOLOGIC MALIGNANCIES IN SOUTH AFRICA: DATA FROM THE NATIONAL CANCER REGISTRY OF SOUTH AFRICA 2000–2005

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Sara Schonfeld*¹; Danuta Kielkowski²; Joachim Schüz¹
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Objective Preliminary analyses were undertaken to describe the distribution of subtypes of hematologic malignancies by age, sex and race in South Africa.

Methods Hematologic malignancy cases ascertained by the pathology-based National Cancer Registry of South Africa were obtained for years of diagnosis 2000 to 2005. For the analysis, ICD-O-3 morphology and topography codes were used to classify cases according to the 2003 site recode definitions of the Surveillance, Epidemiology and End Results Program. Analyses reported here are restricted to 14,191 cases of leukemia, lymphoma (non-Hodgkin (NHL) and Hodgkin (HL)), and myeloma reported for this time period.

Results Overall, NHL was the most commonly diagnosed hematologic malignancy (52.3%) followed by leukemia (25.6%), HL (12.6%) and myeloma (9.6%). This was largely driven by the proportions among cases diagnosed at ages ≥ 15 (NHL: 55.0%; leukemia: 22.0%; HL: 12.4%; myeloma: 10.7%). At ages < 15 , leukemia accounted for more than half of hematologic malignancies (55.4%), followed by NHL (29.5%), HL (14.8%) and myeloma (0.21%). In both age groups, the ranking was consistent across groups defined by race and sex but the specific proportions varied. For example, NHL accounted for 45.7%, 51.0%, 57.7% and 60.6% of the total number of hematologic malignancies among Asian, Black, Colored, and White adults, respectively.

Conclusions Preliminary analyses of hematologic malignancy data reported to the National Cancer Registry of South Africa suggest that distributions of hematologic malignancies may vary by age, race and sex. Subsequent analyses will further explore these patterns and will quantify and compare incidence rates of different hematologic malignancies across these groups.

PLENARY

Environment and occupation in cancer

09h10–10h30

Sunday

24 November
2013

Schüz, Joachim

ROLE OF ENVIRONMENTAL POLLUTANTS, OCCUPATIONAL EXPOSURES AND RADIATION IN THE EPIDEMIOLOGY OF CANCER AND THEIR RELEVANCE FOR AFRICA

Joachim Schüz*

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There are many thousands of man-made or natural chemical and physical agents in our environment including our workplace, and several of them have been shown to have the potential to cause cancer. While it is usually heavy exposure experienced over several years, work-related for instance, that shows a marked cancer risk, there appears to be less concern when the same chemicals occur at environmental levels; however, due to the larger numbers of exposed at low levels reducing exposure to the extent possible also affects the cancer burden in the population. Most environmentally related cancer risks are modifiable, although often not totally avoidable. Some chemicals have no established safe dose, at the same time elimination of all exposure is not possible.

This is why regulation of workers' exposure and environmental protection limits exist in many countries. Where they are not in place, it is often the argument of financial pressure that is used to postpone implementation. With the increase in life expectancy, population growth, but changes in risk factors, the cancer burden for Africa is expected to double between 2010 and 2030. In this context, pollutant-, occupational- and radiation-related cancers become more important for primary prevention. Carcinogens of concern include those that have been long present (e.g. indoor air pollution) whose contribution may increase as life-expectancy increases and long latency periods for cancer are realised; common exposures in mining and agricultural sectors with lack of appropriate worker protection; and modern environmental hazards, including urban air pollution and agents arising from the mis-management of hazardous waste from local, industrial and trans-boundary sources. It is therefore timely to raise awareness of cancer and successful prevention strategies, and identify high risk groups and exposure clustering.

WORK- SHOP

Segal, Richard

EVALUATING YOUR ADVOCACY PROGRAMME – CANCER ADVOCACY MASTERS TRAINING

**Cancer
advocacy
masters training**
08h30–17h30
Wednesday
20 November
2013

Richard Segal*
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Advocacy defined as “a wide range of activities conducted to influence decision makers at various levels” requires careful and at least periodic evaluation to assist advocates in understanding their progress toward their goals. It further generates information that may be used to make adjustments in the pathway originally planned for reaching advocacy goals. Unlike policy analysis which looks at the results of policy or program evaluation which assess whether programs are successful, advocacy evaluation seeks to evaluate the influence of advocates rather than the results of that influence.

This session examines the following steps associated with advocacy evaluation intended for use by the cancer advocacy master trainers:

1. Evaluation Purpose;
2. Roles and Responsibilities of Funders, Advocates, and Evaluators;
3. Describing the Goals of the Advocacy Initiative and What are the Outcomes along the path to the Intended Goals;
4. What to Measure;
5. Methodology and Data Collection;
6. Analysis;
7. Reporting Findings; and
8. Using What is Learned to Make Adjustments in Advocacy Strategies.

Measuring the impact of advocacy strategies is challenging. The presentation will address these challenges.

WORK- SHOP

**Cancer
advocacy
workshop &
expo**
08h30–17h30
Thursday
21 November

Segal, Richard

EVALUATING YOUR PROGRAM FOR CONTINUOUS IMPROVEMENT – GENERAL CANCER ADVOCACY TRAINING

Richard Segal*
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Advocacy defined as “a wide range of activities conducted to influence decision makers at various levels” requires careful and at least a periodic formal evaluation as well as continuous monitoring to assist advocates in understanding their progress toward their goals. It further generates information that may be used within a continuous quality improvement framework to make adjustments in the pathway originally planned for reaching advocacy goals. Unlike policy analysis which looks at the results of policy or program evaluation which assess whether programs are successful, advocacy evaluation seeks to evaluate the influence of advocates rather than the results of that influence.

This session examines steps associated with advocacy evaluation and is intended for use by persons who are in the role of cancer advocates. Guiding considerations in developing an evaluation of advocacy strategies will be discussed including (a) defining advocacy goals and objectives clearly; (b) identifying and accounting stakeholders; (c) developing milestones and performance indicators for tracking progress toward achievement of objectives; (d) developing data collection tools; (e) analyzing data; (f) reporting of findings; and (g) using the findings to make adjustments in advocacy strategies.

PLENARY

Urology
09h10–10h30
Friday
22 November
2013

Seminara, Daniela

A DESCRIPTIVE DATABASE OF CANCER EPIDEMIOLOGY CONSORTIA

Daniela Seminara*¹; Michael Burgio²; Brett Kaminski¹; Eric DeRycke¹
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The Epidemiology and Genomics Research Program (EGRP), of the U.S. National Cancer Institute, supports approximately 60 Cancer Epidemiology Consortia (CEC). These consortia formed to address scientific questions that cannot otherwise be addressed by a single group through the pooling of data from multiple studies for the purpose of combined analyses and collaborative projects. To facilitate data pooling and collaborations across CEC and with individual investigators and groups, EGRP is developing a descriptive database of consortia information.

This database will be publically accessible, searchable, and will contain the descriptive information necessary to establish the feasibility of collaborations. Available information will include the studies and institutions contributing to each CEC, their study designs, cancer site(s), recruitment targets, race and ethnicity data, types of covariate data collected (i.e. lifestyle, treatment, survival, molecular characterization), and the number and types of biospecimens in affiliated biobanks. The database will also contain links to study questionnaires and CEC data sharing, publication, and proposal submission guidelines, when available. The EGRP descriptive CEC database will be a valuable resource for scientists interested in interdisciplinary, collaborative cancer epidemiology research projects. It is expected to launch in early 2014.

WORK- SHOP

Free
communication
of abstracts I
11h00–13h00
Friday
22 November
2013

Sengayi, Mazvita

THE USE OF COMPUTERIZED RECORD LINKAGE FOR CANCER ASCERTAINMENT IN A SOUTH AFRICAN HIV COHORT

Mazvita Sengayi^{*1}; Adrian Spoerri²; Danuta Kielkowski³; Julia Bohlius²; Christie Cloete⁴; Tamaryn Crankshaw⁵; Janet Giddy⁴

¹National Health Laboratory Service, South Africa; ²Institute of Social and Preventive Medicine, University of Bern, Switzerland; ³National Cancer Registry, National Health Laboratory Service, South Africa; ⁴McCord Hospital, Durban, South Africa; ⁵McCord Hospital, Durban, South Africa

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Objective To improve cancer ascertainment in HIV-positive individuals, we conducted a probabilistic record linkage of the National Cancer Registry (NCR) data with the Sinikithemba HIV cohort at McCord Hospital in KwaZulu-Natal (KZN) province, South Africa.

Methods We linked the records of all adult (aged ≥ 16 years) patients on antiretroviral treatment (ART) enrolled at the Sinikithemba HIV clinic from January 2004 to December 2011 with the cancer records of the public laboratories in KZN province. G-link software was used for data linkage. Linkage variables were names, date of birth and gender.

Results A total of 8742 records of HIV-positive patients on ART were linked with 36817 cancer records. We identified 357 cancer cases occurring in 338 patients in the linkage. Median age at cancer diagnosis was 36 years and most patients were female (213; 63%). Fifty-two percent (187) of all cancers were diagnosed prior to ART initiation. The five most frequent cancers in men were Kaposi's sarcoma (71; 55%), non-Hodgkin's lymphoma (9; 7%) oro-pharyngeal (6; 4.6%), conjunctiva (6; 4.6%) and oesophagus (5; 3.9%). The five most frequent cancers in women were Kaposi's sarcoma (75; 32.9%), cervix (58; 25.4%), breast (17; 7.5%), conjunctiva (15; 6.6%) and non-Hodgkin's lymphoma (11; 4.8%).

Conclusions Probabilistic record linkage is a valuable tool for cancer diagnosis ascertainment in HIV cohorts in resource-constrained settings and may reveal the full spectrum of HIV-related cancers. AIDS-defining cancers still account for the majority of cancers occurring in HIV-positive people in the South African ART era, with women and young people most affected.

WORK- SHOP

Free
communication
of abstracts III
11h00–13h00
Saturday
23 November
2013

Sessle, Erica

IMPROVING ENDEMIC BURKITT LYMPHOMA OUTCOMES IN KAMPALA, UGANDA: PRELIMINARY FINDINGS FROM THE BL TREATMENT PROJECT

Erica Sessle*¹; Sarah Gerdt¹; Abrahams Omoding²; Benjamin Mwesige²;
Jackson Orem²; Corey Casper³

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Institute, Uganda; ³Fred Hutchinson Cancer Research Institute, United States

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Objectives We sought to optimize outcomes of endemic Burkitt lymphoma (eBL) at the Uganda Cancer Institute (UCI) through an innovative pilot project that expands patient access to care and adherence.

Methods A comprehensive care model to improve eBL outcomes was developed at the UCI. Diagnostic activities were enhanced by coordinating the roles of surgeons and pathologists to standardize practices. Diagnostic and restaging lab services, chemotherapy and supportive care were also coordinated. A comprehensive care delivery protocol was developed and piloted specifically for the project. Case managers coordinated the care plan using open-source management software, and addressed patients' transportation and psychosocial needs. All patients under 18 years who referred to the UCI with suspected eBL were included. Those with confirmed eBL were seen biweekly over the first three months and at monthly intervals thereafter.

Results 84 children have presented to the UCI with suspected eBL since July 2012, of which 73% had a histologically-confirmed eBL diagnosis. Among those who have completed treatment to-date, 63% have demonstrated a complete response to first-line chemotherapy (cyclophosphamide, vincristine and methotrexate), with 7% loss-to-follow-up. Indicators of successful outcomes, including response to first-line treatment, adherence and other factors, will be presented.

Conclusions An integrated approach to eBL care minimizes loss-to-follow-up, increases treatment adherence and results in improved clinical outcomes. Although further research is needed, these preliminary findings suggest that inexpensive changes in the care delivery system may lead to significant improvements in patient outcomes and may be a model for other regions in sub-Saharan Africa.

Sheppard, Vanessa B

**ENDORSEMENT OF CANCER SCREENING AND PREVENTION IN
AFRICAN ETHNIC WOMEN**

Vanessa B Sheppard*¹; Ify Anne Nwabukwu²; Fikru Hirpa¹;
Alejandra Hurtado de Mendoza¹; Irene Dankwa-Mullan³

¹Georgetown University, United States; ²African Women's Cancer Awareness
Association, United States; ³National Institutes of Health, United States

Thursday
21 November
2013

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Background African immigrant women have lower use of cancer screening compared to US-born women. Despite being among one of the fastest growing ethnic groups, there are limited data on African women's cancer knowledge and screening.

Methods A convenience sample of 200 African ethnic women recruited through community-based organizations and faith institutions completed a questionnaire about cancer knowledge, attitudes, access factors, beliefs, and demographics. We used descriptive statistics, chi-square and t-tests to examine relationships with screening attitudes.

Results Most women (60%) were >age 40, 54% were married, 77% had health insurance, 60% had lived in the US >10 years, and 53% reported English as their primary language. About 16% of the respondents reported unmet healthcare need of medical care, mainly attributed to cost or lack of insurance (61%). Among the 17% who reported not endorsing breast cancer screening/prevention a greater percentage were <40 years (24% vs. 11%; $p=.023$), unmarried (45% vs. 9%; $p=.011$), uninsured (40% vs. 9%; $p<.001$), spoke a language other than English (25% vs. 9%; $p=.003$), had been in the US for ≤ 10 years (27% vs. 10%; $p=.002$), and had a lower breast cancer knowledge score ($p<.001$). Among women >40 who did not believe in screening, 67% (vs. 5%) never had mammogram ($p<.001$).

Conclusion Even in this highly insured sample, a substantial proportion of women reported unmet medical needs and had negative views about cancer screening and prevention. Efforts should be made to build culturally appropriate cancer prevention strategies.

WORK- SHOP

Free
communication
of abstracts IV
14h30–17h30
Saturday
23 November
2013

Sighoko, Dominique

ETHNIC AND GEOGRAPHIC VARIATIONS IN THE PATTERN OF BREAST AND CORPUS UTERI CANCERS ACROSS USA: EVIDENCE FROM 15 STATES AND THE DISTRICT OF COLUMBIA

Dominique Sighoko*¹; Pierre Hainaut²; Olufunmilayo Olopade¹

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Institute, France

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Objective African American women (AA) have lower incidence of breast cancer (BC) and corpus uteri cancer (CUC) but have the highest mortality rates. These two cancers share similar modifiable risk factors but prevalence varies across states and ethnicities. The objective of this study is to assess patterns of breast cancer (BC) and corpus uteri cancer (CUC) in each individual states of the US from which cancer information by ethnicity is available.

Methods Population-based cancer registries that include information on ethnicity from 15 states and the District of Columbia were extracted from the Cancer Incidence in Five Continents Vol. IX database. The rate ratios (RR) [African American women (AA)/Caucasian American women (CA)] with 95% confidence intervals (CI) were assessed.

Results For BC, the highest RRs observed in different geographical regions were as follows: the District of Columbia (RR=1.42, CI=1.07–1.88) and Alabama (RR=1.23, CI=1.12–1.36) in the South; Pennsylvania (RR=1.33, CI=1.18–1.50) in the Northeast; Illinois (RR=1.20, CI=1.11–1.28) in the Midwest; and California (RR=1.22, CI=1.05–1.42) in the West. AA in the South and two states in the Midwest had a predominance of premenopausal BC compared to that of AA in other regions. With regard to CUC, AA aged ≥ 55 years had a higher burden of the disease compared to that of CA almost exclusively in the South and in Missouri (Midwest). The overall RR for CUC was 1.22 (CI=1.17–1.28) in the South, 0.90 (CI=0.84–0.95) in the Northeast, and 0.78 (CI=0.78–0.88) in the West.

Conclusions Significant geographic variations in the burden of CUC and aggressive premenopausal BC exist in the US. Cancer control efforts should be developed based on local disease burden and a clear policy for early detection and prevention of aggressive BC and CUC that disproportionately affect AAs in some states should be considered.

WORK- SHOP

Simonds, Hannah

BREAST CANCER TUMOUR SUBTYPES IN A SINGLE INSTITUTION IN SOUTH AFRICA

**Free
communication**

of abstracts II

14h30–17h30

Friday

22 November

2013

Hannah Simonds*
Groote Schuur, South Africa

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Objectives Molecular subtypes increasingly define breast carcinoma, both as a prognostic indicator and as a guide to therapy. Literature has shown a potential linkage between aggressive triple negative disease and Afro-American heritage. This study examines subtyping in a Western Cape breast carcinoma cohort.

Design and method Retrospective review of patients attending the oncology unit at Groote Schuur in 2012. Data collection included demographics of age and race. Tumour characteristics of ER, PR, and HER2 status were recorded. Molecular tumour type was defined using these characteristics; Ki67 is not recorded at our institution.

Results Records were available for 400 patients. Luminal A comprised the majority of patients at 39.5%, Luminal B 31.8%, TNBC 16.3% and HER2-enriched 12.5%. The median age of the cohort was 56 years and the majority of patients were mixed-race 69.3% (n=277), and 20.8% black African (n=83). There was no significant association between race and TNBC molecular subtype, however there was a trend to an increase of the subtype in the black race patients (18.1%).

Conclusion The incidence of TNBC in this cohort is similar to those reported in international literature. Due to the small Caucasian population at the institution it is not possible to draw definitive comparative conclusions regarding race and incidence of high risk molecular subtypes.

WORK- SHOP

Free
communication
of abstracts I
11h00–13h00
Friday
22 November
2013

Simonds, Hannah

HIV STATUS CONFERS AN INCREASED RISK OF HAEMATOLOGICAL TOXICITY FOR CERVIX CANCER PATIENTS UNDERGOING RADICAL CHEMORADIATION

Hannah Simonds*¹; Judith Jacobson²

¹Groote Schuur Hospital/ University of Cape Town, South Africa; ²Department of Epidemiology, Columbia University, United States

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Introduction The aim of this study was to compare treatment toxicities in HIV-positive and HIV-negative cervix carcinoma patients at a single institution.

Methods and materials Retrospective analysis of a cohort of Stage Ib1 to IIIb invasive cervical carcinoma who received radiation or chemoradiation with curative intent. Demographic data and clinical characteristics were noted. Treatment regimens were documented and toxicities scored as per RTOG guidelines.

Results Complete data was available on 213 patients, including 36 (16.8%) who were HIV-positive. More than 85% of both HIV-positive and HIV-negative patients received adequate external beam and HDR brachytherapy. More HIV-positive than -negative patients were prescribed radiation alone (38.89% v.s.24.29%, $p=0.01$). Fourteen HIV-positive patients (38.9%) and 47 HIV-negative patients (26.6%) group had at least one grade 3/4 toxicity (Table 3). 11 HIV-positive patients (30.6%) vs. 18 HIV-negative patients (10.2%) developed grade 3/4 neutropaenia ($p=0.003$). In a multivariable model that included HIV status, total dose of radiotherapy and chemotherapy; patients who developed grade 3/4 toxicity were nearly 4 times as likely to have received chemotherapy [OR 3.914 (95%CI 1.589–9.345) $p=0.003$]. Additionally, patients with a grade 3/4 toxicity were twice as likely to be HIV-positive [OR 2.198 (95% CI 0.997–4.845) $p=0.051$].

Conclusion HIV-positive patients with cervical carcinoma received adequate radiotherapy but that they were less likely than HIV-negative patients to complete chemotherapy. We found that few HIV-positive or -negative patients who received radiotherapy without chemotherapy experienced grade 3/4 toxicity. However, the addition of chemotherapy leads to significant haematological toxicity in the HIV cohort.

WORK- SHOP

Simonds, Hannah

**HYPOFRACTIONATED RADIOTHERAPY:
A RESOURCE-SPARING OPTION**

**Breast cancer:
focus on**

oncology & care

14h30–17h30

Saturday

23 November

2013

Hannah Simonds*

Department of Radiation Oncology, South Africa

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The standard of adjuvant radiation therapy for breast cancer has changed significantly over the last 15 years. Radiobiological behaviour of breast cancer cells suggests higher doses per fraction are more effective. International studies performed in the UK and Canada have confirmed the efficacy and safety of hypofractionation and this is now being adopted worldwide. Current studies are looking to reduce the treatment time further. Hypofractionated schedules may also be used in the setting of locally advanced inoperable disease.

WORK- SHOP

**Cancer
advocacy
workshop &
expo**
09h00–10h30
Thursday
21 November

Simons, Virgil

THE CADRE PROJECT: RATIONALE FOR PATIENT ADVOCACY

Virgil Simons*
The Prostate Net, Spain

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A major aspect in the management of prostate cancer has been three key impediments to achieving optimal patient care:

1. Lack of interdisciplinary evaluation as a benchmark of patient-centered care
2. Lack of evidence-based clinical management recommendations by initial patient staging or disease progression
3. Disparate access to care, e.g. facilities, insufficiency of time with a physician, socio-economic barriers, etc.

However, because of silo thinking, limited scopes of intervention, deficient organizational structures, most advocacy organizations cannot match their internal resources to the overall parameters of the problem. There is a need for the creation of entities with broad skill sets, with a history of successful interventions that can partner synergistically to implement initiatives that are efficacious in their impact and effective in meeting all of the areas of insufficiency at patient point-of-contact to lessen the suffering and death from a diagnosis of prostate cancer.

Historic patient interventions have focused around support groups, educational meetings, brochures and newsletters, webinars, as well as telephone or web-based help lines. Emerging technologies have seen some elemental web interactivity, video communications and smart-phone applications to educate consumers and patients and to provide access to patient health information. The core deficiency is that there is a lack of focus on target audiences, vehicle implementation, resource capabilities and how to engage the communities of patients, professionals and stakeholders.

The Prostate Net's CADRE Project is the first-in-principle prostate cancer patient advocate training initiative. This cadre will build effective partnerships with medical centers, public health agencies, research centers, complementary patient advocate organizations and corporations with investment in their local communities to significantly advance the fight against prostate cancer and other men's health issues.

Singh, Elvira

10 YEAR CANCER INCIDENCE TRENDS FOR TEENAGERS AND YOUNG ADULTS IN SOUTH AFRICA

Elvira Singh*¹; Patricia Kellett²; Danuta Kielkowski²

¹National Cancer Registry, South Africa, South Africa; ²National Cancer Registry, South Africa

Saturday
23 November
2013

Correspondence Singh, Elvira

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Objectives To describe cancer incidence amongst South African teenagers and young adults (TYA) from 1996–2005.

Methods The National Cancer Registry (NCR) of South Africa was established in 1986 as a pathology-based reporting system for cancer incidence. Cancers diagnosed by histology and cytology in private and public sector laboratories were reported to the NCR. For this study, cancers diagnosed in patients aged 15–24 years were extracted from the NCR database. Incidence rates were calculated according to specific cancers, gender and race.

Results 8970 cancers were reported in this age group from 1996 to 2005, representing 1.6% of all invasive cancers. Of these, 60% were diagnosed in the African population. The top cancer amongst African TYA was Kaposi's sarcoma which showed a steady increase over time. Amongst African female patients, Kaposi's sarcoma and cancer of the cervix predominated. For the rest of the TYAs in South Africa, the patterns of cancer were similar to international patterns with melanoma, Hodgkin Lymphoma and leukaemia being the most common. If the age group of TYA's is extended to include 25–29 year olds, the pattern changes significantly with HIV related cancers predominating.

Conclusion The pattern of cancers in the African population in South Africa is different to cancers reported in this age group in the rest of South Africa and in international studies. Public health policy must take cognisance of this as well as the impact of HIV on the epidemiology of cancers.

WORK- SHOP

Singh, Sandhya

CONSIDERATIONS ON DEVELOPING A NATIONAL CANCER PREVENTION AND CONTROL PROGRAMME FOR SOUTH AFRICA

**National
cancer control
plans**

11h00–13h00

Friday

22 November
2013

Sandhya Singh*

Cluster: Non-Communicable Diseases, South Africa

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South Africa experiences a quadruple burden of disease which presents complex challenges to the Ministry of Health and Government in achieving a “Long and Healthy Life for All” (Medium Term Strategic Framework 2009–2014). Recognising that the quadruple burden of disease comprises HIV and AIDs, TB and Non-Communicable Diseases; a responsive and integrated National Cancer Prevention and Control Programme (NCPCP) must articulate with all relevant policies both within the Department of Health and outside the Sector. However the direct correlation between an effective NCPCP and cancer intelligence of which Population Based Registries are central, is fully acknowledged. Hence the development of an NCPCP in South Africa is compromised by the lack of appropriate and updated metrics. The development process attempts to make optimal use of reporting by a revived National Cancer Registry and recognises the need for flexibility should the evolving cancer intelligence system demand. Considering this limitation and noting the political and strategic context of the country, achieving universal access to health by all remains central to the development of a NCPCP for South Africa.

WORK- SHOP

Sitas, Freddy

INTERSCOPE STUDY: ASSOCIATION BETWEEN HPV AND OESOPHAGEAL CANCER

**AORTIC/IUBMB
oesophageal
cancer
symposium
11h00–13h00
Wednesday
20 November**

Sitas Freddy¹; Margaret Urban*²; Sam Egger¹; Phil R Taylor³; Tim Waterboer⁴; Interscope Collaborators⁵

¹Cancer Council NSW, Australia; ²Cancer Epidemiology Res Group, NHLS, South Africa; ³National Cancer Institute, United States; ⁴German Cancer Research Centre, Germany; ⁵Australia

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The role of human papillomavirus (HPV) in the causation of oesophageal squamous cell carcinoma (OSCC) is unclear. We examined the associations between OSCC and twenty eight serological markers of HPV from ten regions (South Africa, Iran, China, Brazil, Australia, Czech Republic, Russia, Romania & Poland) with differing background risks of oesophageal cancer.

We tested serum samples centrally using multiplex serology from 1561 cases and 2502 controls from six case-control studies for antibodies to the major HPV capsid protein (L1) and/or the early proteins E6 and/or E7 of eight high-risk, two low-risk, and four cutaneous HPV types. Odds ratios (ORs, and 95% CIs) were estimated using linear or joint mixed-effects after adjusting for smoking, alcohol consumption, and other confounders.

We found statistically significant associations between OSCC and antibodies to E6 for HPV16 (OR = 1.89, 95% CI = 1.09 to 3.29, P = .023) and HPV6 (OR = 2.53, 95% CI = 1.51 to 4.25, 2P < .001) but not for any of the other HPV types tested. Simultaneous seropositivity for HPV16 E6 and E7 was rare (4/1561 cases, 2/2502 controls; OR = 5.57, 95% CI = 0.90–34.35; 2P = .064). We also found statistically significant associations between OSCC and capsid antibodies for the high-risk mucosal type HPV33 L1 (OR = 1.30, 95% CI = 1.00 to 1.69; 2P = .047) and the low-risk mucosal types HPV6 (OR = 1.22, 95% CI = 1.05 to 1.42; 2P = .010) and HPV11 (OR = 1.30, 95% CI = 1.09 to 1.56, 2P = .0036).

In this large, systematic study, we found limited serological evidence of an association between oesophageal squamous cell carcinoma and HPV in the populations studied. HPV does not appear to be an important risk factor for oesophageal squamous cell carcinoma.

POSTER 173

Friday
22 November
2013

Sithole, Nomfuneko

ESTIMATING CANCER PROFILE IN AN URBAN POPULATION OF THE EASTERN CAPE PROVINCE USING A HOSPITAL-BASED CANCER REGISTRY

Nomfuneko Sithole*

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Objective The available information on cancer profile in the Eastern Cape Province is bias as it only includes rural population. The aim of this study is to describe the cancer profile of an urban population for the period; 01 January 1991 to 31 December 2009 using a hospital-based cancer registry.

Methods Information of cancer patients diagnosed at Frere Hospital Radiation Oncology Department in East London was retrieved from the hospital register database into an excel spread sheet. A total of 24 213 cases were retrieved. Data were cleaned for duplicates and primary cancers were identified. Cases with incomplete information such as missing diagnosis were excluded. Edit checks were further carried out which include age/site and sex/site comparability. Clean data were then loaded into STATA 12.0 software for analysis. The cancer profile was described by year, age, sex and site. Incidence rates for urban residents were calculated using a population estimate projected from the 2007 Community Survey.

Results After preliminary analysis, a total of 19 051 cancer cases were observed (39.1% males and 60.9% females). The mean age at diagnosis was 57 years for males and 55 years for females. The most frequently reported cancer sites in males were lung (15.2%), larynx (8.2%), prostate (7.2%), tongue (5.1%) and trachea (3.6%) whilst in females were cervix (36.2%), breast (22.1%), lung (2.7%), ovary (2.7%) and uterus (2.6%).

Conclusions Most common cancer sites in males include lung, larynx, prostate, tongue and trachea whilst in females; cervix, breast, lung, ovary and uterus.

Friday
22 November
2013

Siyo, Vuyolwethu

ANTI-CANCER ACTIVITY OF AJOENE RELATED ANALOGUES INVOLVES THE INDUCTION OF ENDOPLASMIC RETICULUM STRESS

Vuyolwethu Siyo*¹; Catherine Kaschula¹; Iqbal Parker²

¹University of Cape Town, South Africa; ²Internal Centre for Genetic Engineering and Biotechnology, South Africa

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Objective Ajoene (4, 5, 9-trithiadodeca-1, 6, 11-triene 9-oxide) is an organosulfur compound, found in a crushed garlic clove, possessing anti-cancer properties. Cell based screening techniques demonstrated that the synthetic ajoene analogue, E/Z bisPMB (E/Z 4-methoxybenzyl (1E)-3-[(4-methoxybenzyl) sulfinyl] prop-1-en-1-yl disulfide), is 12.5 times more active than ajoene. Fluorescently tagged ajoene related analogues co-localises with an ER (endoplasmic reticulum) tracker dye. Accumulation of unfolded proteins in the ER results in a patho-physiological condition called ER stress, characterised by well-defined UPR (unfolded protein response) pathways. This project aims to characterise the role that ER stress plays in mediating bisPMB induced apoptosis.

Methods WHCO1 (squamous cell carcinoma of the oesophagus) cells were treated with 7 μ M bisPMB (IC50) or 1 μ M thapsigargin (an ER stress inducer) and tested for anti-proliferative, apoptotic, cell cycle arrest, transcriptional regulation and protein expression of UPR genes. The applied techniques include; MTT, DNA fragmentation, flow cytometry, western blot analysis and real time PCR. Graph Pad Prism[®] statistical analysis ($p < 0.05$) was obtained using student t-test.

Results We demonstrate that bisPMB induced a time and concentration dependent anti-proliferative and apoptotic effect on WHCO1 cells. BisPMB treated WHCO1 cells exhibit a concentration dependent caspase 3 activation and a G2M cell cycle arrest. WHCO1 cells treated with bisPMB resulted in elevated levels of ER stress markers. Knock down of CHOP (CCAT enhancer binding protein homologous protein) in WHCO1 cells reversed the anti-proliferative effects of bisPMB.

Conclusions The results indicate that BisPMB conducts its anticancer activity via an ER stress induced apoptosis, G2M cell cycle arrest, and by inhibition of proliferation in WHCO1 cells.

Smith, Muneerah

AN INVESTIGATION INTO THE ANTI-CANCER MECHANISM OF
ORGANOSULFUR COMPOUNDS

Muneerah Smith*¹; Catherine Kaschula¹; Iqbal Parker²

¹University of Cape Town, South Africa; ²International Centre for Genetic Engineering and Biotechnology, South Africa

Friday
22 November
2013

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Objective The objective of this study is to determine the anti-cancer mechanism of garlic-related organosulfur compounds (OSC) in the WHCO1 oesophageal cancer cell-line.

Methods For our study, we used two OSC, namely S-(4-methoxybenzyl) benzenesulfonothioate (t-PMB) (IC₅₀ = 14.8 ± 1.9 μM) and 2-(propyldisulfanyl) pyridine (200) (IC₅₀ = 9.9 ± 1.9 μM). We aimed to see whether our compounds induce their anti-cancer activity through increased levels of ROS production by doing a 2',7'-Dichlorofluorescein diacetate (DCFH-DA) assay; cell-cycle arrest with flow cytometry; and finally assessing apoptosis induction through a histone dissociation assay. Statistical significance (p < 0.05) of the results was assessed through a test.

Results Thus far we observed that treatment with either compound induced increased levels of ROS production in a dose- and time-dependent manner for up to 6 hours. We have also observed a G2/M-phase cell-cycle arrest when treating with either compound at twice their respective IC₅₀'s. Finally, we observed that treatment with either t-PMB or 200 resulted in histone dissociation indicative of apoptosis. Lastly, we tested the in vivo anti-cancer activity of these compounds using nude mice with an A375 human melanoma xenograft, and observed that treatment with either t-PMB or 200 decreased the tumour sizes for up to 16 days when compared to the controls, although we observed notable side-effects when treating with t-PMB.

Conclusion In conclusion, we observe that these OSC have higher in vitro anti-cancer activities compared to their parent compounds, and that compound 200 may have potential as a chemotherapeutic agent.

WORK- SHOP

Soerjomataram, Isabelle

THE BURDEN OF CANCER RELATED TO TOBACCO SMOKING: WILL THERE BE A NEW EPIDEMIC IN AFRICA?

Tobacco-related cancers

11h00–13h00

Saturday

23 November

2013

Isabelle Soerjomataram*¹; Elisenda Renteria¹; Max Parkin²

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Tobacco smoking is the major cause of cancer worldwide, and has been related to 21% of all cancer deaths (in 2002). While decreasing smoking prevalence in developed countries has been followed by declining smoking-related cancers in those regions, it is expected to rise in low and middle income countries, where smoking rates are increasing. The current status and future perspective in Africa is lacking and controversy exists: will the tobacco epidemic reach Africa or not?

Using lung cancer mortality as a proxy of accumulated exposure to tobacco smoking, supplemented by cancer incidence and smoking surveillance data, we will estimate the burden of smoking related cancer in Africa. In 2008 there were an estimated 7.6 million cancer deaths worldwide (excluding non-melanoma skin cancer) and 1.4 million (18%) were attributable to tobacco smoking. Comparable estimates for Africa indicate 0.5 million cancer deaths yet only 21,640 were attributable to tobacco (4%). Unlike the rest of the world where lung cancer remains the most common cause of cancer deaths, lung cancer in Africa ranks fifth after cervix uteri, breast, prostate and liver cancer. Longitudinal data from population-based cancer registry or mortality records show diverging results; increasing lung cancer rates among men in northern African countries e.g. Egypt and Algeria, and decreasing rates in southern African countries e.g. South Africa and Zimbabwe. In contrast lung cancer incidence among African women has remained very low.

Reflecting the diversity of populations in Africa, the pattern of smoking related cancers varies considerably in the region. While tobacco smoking seems to have a small impact on the current cancer burden in Africa, recent surveys show high tobacco smoking especially in men. Thus, in combination with growing population size related to aging, Africa is facing a new challenge of rising burden of cancer and understanding the impact of smoking will become increasingly important.

Somdyala, Nontuthuzelo
**CHECKING CONSISTENCY AND LEGITIMACY OF CANCER DATA
COLLECTED BY FOUR HOSPITALS**

Friday
22 November
2013

Nontuthuzelo Somdyala*; Nomfuneko Sithole
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Objective Population-based cancer registries are essential for assessing the extent of cancer burden in a specified geographic area. Since incidence data collected is reported by more than one source, information sometimes is bound to have variations. As such, quality assurance is always emphasized which is described by four attributes that include ascertainment or accuracy, completeness, timeliness and validity. The aim of the study was to assess the reliability and validity of information reported by four sources of information.

Methods Data were extracted from patients' notification forms sent by four hospitals for the year 2010. Variables selected include patient information including address, cancer site, date of diagnosis, basis of diagnosis and vital status. Total number of cases reported per source was verified. Records from the four sources were matched with those collected by the registry personnel to compare information recorded. Because same data sources were used to collect information; 100% comparability was expected in both completeness and accuracy.

Results Variations were observed. When comparing the total number of cases reported only; one source obtained 100% whereas two sources had 90% and one 88%. Completeness of information recorded was between 92% and 100%.

Conclusion These results emphasize close monitoring and training to data collectors improving their performance.

Saturday
23 November
2013

Sunday Soyemi*; Olugbenga Oyewole; Adedayo Faduyile
Lagos State University, Nigeria

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Introduction Primary brain tumours are uncommon with an annual incidence of 5–10/100000. This study has attempted to analyse the age and sex distribution as well as the WHO grading of intracranial tumours in our centre.

Materials and method A retrospective study of cases of intracranial tumours seen was conducted over a period of 5 years i.e. from January 2008 to December 2012. All the slides were reviewed. The age, sex, diagnosis including the WHO grading and the histological subtypes were recorded. Data were analysed using the (SPSS) Software version 17.

Results Altogether, 52 cases of intracranial tumours out of total of 12,610 biopsies representing 0.4% were seen. The male to female ratio (M: F) was 3:2. The mean age of the patients was 36 ± 20.35 (range, 2 to 85). Astrocytoma accounts for 33% (17) while 31% (16) had Meningioma. Medulloblastoma accounted for 10%. Of the Astrocytoma cases, 52% were WHO grade II. (38%) of Meningioma were mixed while 25% Transitional.

Conclusion Glioma was the commonest brain tumour. These patterns corroborate most studies that have been done. Metastasis to the brain was however, not seen in this study.

WORK- SHOP

Stefan, Daniela Cristina **CHILDHOOD CANCER REGISTRATION IN AFRICA**

Daniela Cristina Stefan*
Stellenbosch University & Tygerberg Hospital, South Africa

African Cancer Registry Network

14h30–17h30

Friday

22 November
2013

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How many children are diagnosed with cancer in Africa? At the moment this question does not have an answer. The population of our continent is just above one billion, out of which the age group 0–14 years represents 41% or about 410,000,000 children. Assuming a similar rate of childhood malignancies as in other geographical areas, of between 112/1,000,000, an estimated number of new childhood cancer cases of between 46,000 and 57,000 may occur every year on the African continent. With continued improvement of pediatric primary care in the urban areas and increasing access to medical care of rural population in many of the African countries, the number of diagnosed pediatric cancer cases is expected to increase rapidly.

There is only one dedicated children's cancer registry in Africa, which belongs to South Africa, although the International Association of Cancer Registries has 60 African members. However, only 17 of these are national registries and the rest are regional or hospital based registries. The data in these registries include both children and adults with cancer; therefore some meaningful data pertaining to children may be missed. The registry is an essential tool to collect data on malignant disease in the pediatric population as the epidemiology varies considerably from the pattern reported in USA or Europe. There is an urgent need to improve the registration of cancer in children in Africa as this information is vital to plan the services of pediatric oncology units and the collected information has the potential to assist scientific analysis, planning and research.

WORK- SHOP

Stefan, Daniela Cristina

HOW TO IMPROVE THE SURVIVAL OF NEPHROBLASTOMA IN AFRICA?

**Paediatric
oncology**

11h00–13h00

Sunday

24 November

2013

Daniela Cristina Stefan*

Stellenbosch University & Tygerberg Hospital, South Africa

Correspondence Stefan, Daniela Cristina

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Nephroblastoma is one of the most common childhood cancers in Africa and one of the cancers easily to diagnose and treat. The survival rates in rich resource countries is above 90% in stage 1 and 70% in advanced or high risk groups. In Africa survival rates varies between the centers but remain low, in most countries due to many contributing factors. Staging is often incomplete as well as the pathology reported. Despite 2 recognized protocols (SIOP and COG) there is a need for specific protocols for the management of the disease in Africa adapted to the context as well as to its cost. The cost of treatment remains high for most African patients, ranging between \$400 (pre and post-operative chemotherapy 4–6 cycles), and \$750 for 27 weeks (2 drugs) and just less <\$1000 for 3 drugs. Radiotherapy is available only in limited number of African units and is not the preferred choice of treatment. The mortality due to nephroblastoma remains high in Africa due to advanced disease, lack of adapted protocols, chemotherapy and supportive care. There is a need for collaboration between centers and specific guidelines for nephroblastoma in African children. This study analyses the distribution of nephroblastoma on the African continent, the outcome of the disease in different countries and regions in Africa and proposes an algorithm to improve the survival.

POSTER
178

Strydom, Erin
**INVESTIGATING KPN β 1: SMALL MOLECULE INTERACTIONS FOR
CANCER THERAPY**

Thursday
21 November
2013

Erin Strydom*
University of Cape Town, South Africa

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Objective The nuclear transport protein Karyopherin β 1 has been shown to be up-regulated in cancers of different origins. Kpn β 1 expression has been found to be critical for the growth and survival of cancer cells as its inhibition using siRNA has been shown to result in cancer cell death. In this study, a rational drug design approach was used to identify small molecule inhibitors against Kpn β 1 with anti-cancer potential. One compound, C43 was tested for its ability to kill cancer cells and block nuclear import using the NFAT assay. Having established that C43 can inhibit both nuclear import and kill cancer cells in vitro, this project aims to investigate the binding kinetics of Kpn β 1:C43 interactions.

Methods and results Methods aimed at investigating Kpn β 1:C43 interactions include; isothermal calorimetry (ITC), circular dichroism (CD) and electron spray mass spectrometry. Using purified Kpn β 1 protein we have conducted binding studies with ITC. Our preliminary data shows a potential, albeit weak interaction between C43 and Kpn β 1. Future studies such as CD will be performed to further investigate these interactions.

Conclusion Our results so far show potential for an interaction between Kpn β 1 and a small molecule inhibitor, C43. We have also shown that C43 can both inhibit cancer cell proliferation and block nuclear import. The potential of C43 and derivatives thereof as anti-cancer therapeutic agents will be explored.

WORK- SHOP

Swaminathan, Rajaraman REGISTRIES AND CANCER OUTCOMES

Rajaraman Swaminathan*
Cancer Institute (W.I.A), India

The case for cancer registries

14h30–17h30

Thursday

21 November
2013

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Cancer registries are important sources of data not only on incidence but also on outcomes like mortality, survival and cure. Data acquisition on cancer mortality is a routine activity integrated into any population-based registry operations. However, the resultant mortality rate is dependent on the quality of death registration and certification system in the region. Unlike more developed countries, most cancer mortality statistics including mortality to incidence ratios from less developed countries is deficient following incomplete details in death certificates and data linkage difficulties with cancer registry data. In such circumstances, mortality data is often enhanced by registries undertaking special efforts and monitoring. Thus, cancer survival data may not be routinely possible and would require concerted efforts to obtain follow up data on vital status of patient including mortality through active methods. Loss to follow up, at varying lengths of time since cancer diagnosis, is conspicuous from the published literature on cancer survival estimation from less developed countries. This necessitates recognition of qualitative differences among censored cases and application of loss-adjusted approaches in survival estimation. Long-term trends in survival from common cancers can be correlated with treatment milestones while different analogy using statistical cure models or relative survival analysis can provide meaningful insights into cancer prognosis and other outcomes. Thus, cancer registries are sine-qua-non for any rational cancer control.

Friday
22 November
2013

Tapela, Neo

IMPLEMENTATION AND PRELIMINARY FINDINGS OF
A COMPREHENSIVE CANCER CENTER OF EXCELLENCE
IN RURAL RWANDA

Neo Tapela*¹; Tharcisse Mpunga²; Molly Moore¹; Richard B Mark Munyaneza²;
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Objectives We describe implementation of a comprehensive cancer program and the types of cancers seen among patients receiving care at Butaro Cancer Center of Excellence (CCOE) in rural Rwanda.

Methods With growing patient volume and prioritization of national scale-up of cancer services, Rwanda Ministry of Health (MOH) designated Butaro Hospital a national CCOE in July 2012. Supported by Partners In Health (PIH), in partnership with MOH and Dana-Farber/Brigham and Women's Cancer Center (DF/BWCC, Boston, USA), the CCOE delivers services including pathology-based diagnoses, chemotherapy, surgery, referral for radiotherapy, long-term follow-up and socioeconomic supports. Care is led by a team of trained general physicians and nurses, who follow nationally-endorsed protocols developed through this partnership, and consult with oncology specialists at DF/BWCC through weekly conference calls and email. An oncology electronic medical record (EMR) system is in use. Retrospective review of routine medical records of patients enrolled July 1st, 2012 to May 31st, 2013 was conducted.

Results During the study period, over 900 patients have been registered, with the most common cancers, in descending order of predominance, being: breast, cervical, acute lymphoblastic leukemia, Hodgkin's lymphoma, nephroblastoma, chronic myelogenous leukemia, colo-rectal cancer, head and neck, Kaposi sarcoma, non-Hodgkin's lymphoma and stomach cancer. Clinical details of treatment and outcome will be presented.

Conclusions Cancer care can be effectively delivered in resource-limited settings through innovative North-South partnerships geared towards capacity building. National scale-up of cancer programs is underway, as is strengthening of national cancer registry and research to inform burden of disease and outcomes.

WORK- SHOP

AORTIC/IUBMB
oesophageal
cancer
symposium
11h00–13h00
Wednesday
20 November

Taylor, Philip

NUTRITION AND ESOPHAGEAL SQUAMOUS CELL CARCINOMA

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Nutrition is a leading hypothesis in the etiology of ESCC, particularly in the developing world where 80% of all esophageal cancers occur and ESCC is the predominant histologic type. Since nutrition can be modified, it is a particularly attractive target for ESCC prevention strategies. This talk will review the evidence for micronutrients in the etiology of ESCC, emphasizing results from intervention trials and prospective observational epidemiology studies of vitamins and minerals.

WORK- SHOP

HPV cervical
cancer network
in Francophone
Africa

14h30–17h30

Thursday

21 November

Tebeu, Pierre Marie

EPIDEMIOLOGY OF HIGH RISK HUMAN PAVILLOMAVIRUS IN CAMEROON

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Background High-risk human papillomavirus (HPV) is at the origin of more than 99.7% of cervical cancer cases. HPV genotypes 16/18 are reported as responsible of more than 70% of worldwide cervical cancers cases. Little is known about epidemiology of HPV in Cameroon, and especially HPV 16/18 prevalence. This study was initiated for better understanding the epidemiology of HPV in Cameroonian women aged 30 to 65 eligible for cervical cancer screening.

Methods An analytical cross-sectional study was conducted to gather data from women who participated in the screening campaigns cervix cancer in the three regions in Cameroon (Centre, West and South-west regions). Data were collected on a standard questionnaire and introduced in an Excel sheet. Data analysis was done using Epi Info 3.5.3, 2011.

Results Of the 1332 women aged 30 to 65 years screened, 324 of them were HPV positive (24.3%). Prevalence of genotypes (16/18) was 4.6% among the overall study population (66/1332). Additionally, HPV 16/18 represented 19,7% of all HR-HPV(262/324). Multivariate analysis identified sexual intercourse before 17[OR:1,45; 95% CI:1,11–1,89], more than two cumulative sexual partners [OR:1,91; 95% CI:1,41–2,59], any induced abortion [OR:2,7; 95% CI: 1,81–4,1]; and positive HIV status [OR: 3,37 ; 95% CI : 1,07–10,64] were identified as risk factor for HPV positivity.

Conclusion HPV is common among women Cameroonian aged 30–65. Risk factors for HPV infection are important for stakeholders involving in sensitisation and vaccination and overall cervical cancer prevention in Cameroon.

Terwase, Joyce Mcivir

**THE IMPACT OF TOBACCO SMOKING ON HEALTH AND CESSATION
AMONG A COHORT OF SMOKERS IN IBADAN**

Saturday
23 November
2013

Joyce Mcivir Terwase*¹; Chioma Asuzu²

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Objectives Despite the cumulative effects of tobacco smoking which have been recorded as both destructive and widespread, a higher incidence of tobacco use is reported from Africa and Southern Asia. In this study, we aim to investigate the health implication of tobacco smoking among a cohort of males in Ibadan, Nigeria. The sources of influence that contribute to smoking are determined, as well as the variables which aid smoking cessation.

Method Data required for this study were collected using a self-constructed questionnaire titled, Tobacco Addiction Questionnaire (T.A.Q), which had two parts. The first part elicits demographic information as well as smoking and medical history, while the second part reveals addiction level/smoking behaviour of respondents. A total of 61 respondents were sampled from three local government areas in Ibadan. The study adopted a descriptive survey design.

Results The investigation of the prevailing ailments revealed that the most prominent health problems among this cohort of smokers were basically chest pain, cough associated with sputum discharge, easy invasion of malaria parasites, and dry lips with dark colouration in a descending order: 32%, 25%, 20% and 10% respectively. These ill health challenges were associated with an average age of 25 years, 38 years, 47 and 48 years respectively. Results also revealed diverse factors which influenced persistent smoking habits among this group of motorcyclists. Precisely, association and pressure from family members (smokers), friends and co-workers favoured a continuous smoking habit among them.

Discussion This study reveals that, both the younger and older adults are engaged in the motorcycling business in Ibadan, and are in the habit of smoking uncontrollably. The impact of tobacco smoking on their health as revealed from this finding, has implication for progression to cancers; especially cancers of the lips, lungs and other ailments associated with smoking.

Friday
22 November
2013

Tesfamariam, Asmerom

MOLECULAR BIOLOGY OF BREAST CANCER IN THE HORN OF AFRICA. CASE SERIES: A PILOT STUDY OF BREAST CANCER FROM ERITREA

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Background Recently, gene expression profiling and surrogate immunohistochemistry (IHC) markers, suggest breast cancer can be classified into four distinct molecular subtypes, which have different prognoses, opportunities for targeted therapies, and/or clinical outcomes.

Objective To conduct a preliminary study to correlate the clinical-pathological profiles and taxonomy of molecular subtypes of breast cancer in Eritrea, in the Horn of Africa.

Methodology Review of pathology reports from Jan. 1 to Nov. 30, 2009 provided 22 cases of microscopically confirmed invasive breast carcinoma that were evaluable for histology and IHC (ER, PR, HER2 and Cytokeratin5/6).

Result Twenty patients were female and most (68%) were under 50 years at presentation. 90% were invasive ductal carcinoma, "Not Otherwise Specified" and 63% were histological grade 3. The molecular subtypes were Luminal A = 55%, Luminal B = 5%, HER2 = 5%, Basal-like = 10%, and unclassified = 25%. Triple negative carcinoma (Basal-like and unclassified combined) was 35%, mostly (71%) in women under 50 years with grade 3 tumours.

Conclusion Breast carcinoma in Eritrean women presents at a younger age and is histologically more aggressive than carcinoma in Caucasian women. Molecular subtyping shows two predominant patterns: Luminal A that is known to be hormonally responsive, with a good prognosis and triple negative breast cancer known to be hormonally unresponsive, with a poor prognosis. This is similar to that reported in many, but not all, other African countries. Determining the molecular subtype using surrogate IHC markers has important treatment and prognostic implications for Eritrean women with breast cancer.

WORK- SHOP

**National
cancer control
plans**
11h00–13h00
Friday
22 November
2013

Torode, Julie

**A NEW INTERNATIONAL PARTNERSHIP TO SUPPORT AND FOCUS
NATIONAL CANCER CONTROL PLANNING EFFORTS AT COUNTRY
LEVEL**

Julie Torode*

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Heads of State across the globe took steps to address the rising burden of cancer at the United Nations High Level Meeting on Noncommunicable Diseases (NCDs) in 2011 and have since approved a set of voluntary targets for prevention and control of NCDs and a common goal of reducing premature deaths from NCDs by 25% by 2025 through the World Health Organization's Global Action Plan 2013–2020. In addition, governments have committed to developing national NCD plans by the end of 2013. Thus the next year presents a unique opportunity for the cancer community to unite behind an advocacy push for governments to prioritize National Cancer Control Plans (NCCP).

Union for International Cancer Control (UICC) and National Cancer Institute USA convened global agencies and partners to cooperate in assisting countries to develop, implement, monitor and evaluate quality NCCPs for integration into NCD programmes. The resulting International Cancer Control Planning Partnership ICCPP believes that prioritizing cancer is critical to reaching the "25x25" goal.

This presentation will introduce the Partnership, highlight key features of the new ICCPP-portal, such as the searchable database of current cancer control plans, and opportunities for African organisations to get involved as well as discuss priorities for new resources and technical assistance relevant for efforts in Africa.

WORK- SHOP

**Cervical
cancer
prevention II**
11h00–13h00
Thursday
21 November
2013

Torode, Julie

OPPORTUNITIES TO ADDRESS THE HEALTH CARE PROFESSIONAL TRAINING NEEDS FOR OPTIMAL SCALE-UP OF CERVICAL CANCER PREVENTION

Julie Torode*

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The Global Action Plan on Noncommunicable diseases 2013–2020 was approved by all governments in May this year at the World health Assembly. Cervical cancer is rightly embedded in the target and indicator framework as a cancer with robust evidence for prevention through HPV immunisation programmes and early detection and treatment of pre-cancerous lesions with VIA and cryotherapy as well as some promising new technologies for the African setting.

How will the health care personnel needed to provide these services be put in place in the African region?

UICC awards over 100 fellowships annually and has invested over 3 million USD in training in the period 2007–2011. In the past five years, 101 countries have received UICC training grants and the workshop format has increasingly been in focus with 15 work shop successfully completed in 2011 alone.

This presentation will highlight some initiatives relevant for cervical cancer prevention planned and on-going in the African region and also showcase opportunities for cancer control leaders in Africa to harness the updated Union for International Cancer Control workshop offer for implementation and scale up of cervical cancer control plans using some recent examples of activities in the African region.

**POSTER
181**

Saturday
23 November
2013

Traore, Bangaly

PRIMARY BURKITT LYMPHOMA IN A HIV-INFECTED YOUNG WOMAN

Bangaly Traore*¹; Marie-Eve Fondrevelle²; Mamoudou Conde¹;
C Chassagne-Clement²; Tidiane Kourouma¹; Ahmed Monzomba Keita³;
Moussa Koulibaly³; Bakary Sylla⁴

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²Laboratoire de Pathologie, Centre Léon Bernard de Lyon, France; ³Laboratoire
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Burkitt's lymphoma of the breast is very rare. We present a case in a HIV-infected young woman with review of literature. The patient, aged 30, consulted on 18th July 2012 for a right breast lump lasting for one month. Clinical examination showed a multilobed breast lump associated with ipsilateral axillary lymph nodes. Fine needle aspiration suspected non-Hodgkin lymphoma. Biopsy and immunohistochemistry confirmed Burkitt's lymphoma breast. Antiretroviral therapy and chemotherapy started. The patient was lost sight after two courses of chemotherapy (COP schedule). The immediate outcome was marked by a significant remission, but the patient died 5 months later.

Saturday
23 November
2013

Traoré, Cheick Bougadari

**ASPECTS ÉPIDÉMIOLOGIQUES ET IMMUNOHISTOCHIMIQUES
DES LYMPHOMES AU SERVICE D'ANATOMIE ET DE CYTOLOGIE
PATHOLOGIQUES AU CHU DU POINT G À PROPOS DE 20 CAS**

Cheick Bougadari Traoré*¹; Bourama Coulibaly²; Brahima Mallé²;
Bakarou Kamaté²

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A fin de déterminer les aspects épidémiologiques et immunohistochimiques des lymphomes au Mali, nous avons entrepris une étude prospective portant sur 20 cas. Les LNH étaient les plus importants avec 80% contre 20% du LH. Le sexe masculin prédominait. L'âge moyen des patients était de 44,5 ans. La tranche d'âge 51–60 ans était la plus représentée. La répartition des cas selon les types histologiques a montré une prédominance identique du type I et IV avec 50% dans le LH et des lymphomes à petites cellules et immunoblastiques dans les LNH avec 15%. La profession la plus représentée était les ménagères avec 25%. L'atteinte était ganglionnaire dans 50% avec localisation cervicale préférentielle 45%. L'immunomarquage a été effectué dans 17 sur 20 cas. Le taux de concordance entre l'histologie et l'immuno-histochimie était de 75% et 81,25% respectivement pour les LH et Les LNH. Parmi les cas de lymphomes confirmés après immunomarquage, nous avons trouvé 62,5% LNH de type B. Les LNH de type T et les LH avaient la même fréquence de distribution égale à 18,75%. Parmi les LNH de type B, les LNH diffus à grandes cellules représentaient 90%; le LLC avec 1 cas avec 10%. Les LT périphériques avaient 66,67% de l'effectif contre 33,33% pour le PTCL. On a retrouvé 3 cas de LH avec une fréquence identique égale 33,33%. La prédominance chez les ménagères nous amène à évoquer l'intérêt d'une étude sur les facteurs de risque des lymphomes.

WORK- SHOP

Turhal, Nazim Serdar

KRAS EXPRESSION IN HEPATOCELLULAR CANCER: A TURKISH ONCOLOGY GROUP STUDY

**Free
communication
of abstracts I**
11h00–13h00
Friday
22 November
2013

Nazim Serdar Turhal*¹; Bülent Karabulut²; Taner Korkmaz³; Demir Gokhan⁴;
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University, Turkey; ⁶Ankara University, Turkey

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Objective Hepatocellular carcinoma (HCC) is the sixth most common male predominant cancer worldwide but not one of the top ten cancers in incidence or mortality in Turkey either in males or females. There is no effective treatment regimen available for advanced stage patients. The chemotherapy is generally not effective and recently a tyrosine kinase inhibitor approved for the treatment of patients otherwise unnameable to local treatments. KRAS expression is an important biomarker to predict the response to biological treatment agents such as cetuximab in colorectal cancer. KRAS expression status in HCC is not known.

Methods 58 patients from 6 comprehensive cancer centers in 4 metropolitan cities of Turkey contributed to the study. Each center committed to participate with roughly 10 random patients, whose formalin-fixed paraffin-embedded (FFPE) tumor tissues are available, were involved for the KRAS genotyping. Genomic DNA was extracted from three 6-µm FFPE sections using the QIAamp[®] DNA FFPE Tissue kit (Qiagen), according to manufacturer's instructions. If enough DNA was available for PCR then patients KRAS status for exon 2 (including kodon 12 and 13) was performed, if enough DNA was not available on the samples for QIAamp[®] then the analysis was performed by using the TheraScreen[®]: K-RAS Mutation Kit that identifies the seven most frequent somatic mutations located in codons 12 and 13 (35G>A; 35G>C; 35G>T; 34G>A; 34G>C; 34G>T and 38G>A).

Results 40 out of 58 samples had adequate tumor tissue for analysis. 33 of the studied samples had no mutation at exon2 (wild type). All mutations are determined via direct sequencing technique QIAamp[®], none by TheraScreen[®].

Conclusion HCC has remarkably low (<20%) KRAS mutation. The patients with KRAS wild type tumors may be good candidates for EGFR inhibitor based treatment strategies.

WORK- SHOP

**National
cancer control
plans**
11h00–13h00
Friday
22 November
2013

Ullrich, Andreas

CHALLENGES IN PLANNING AND IMPLEMENTING A COMPREHENSIVE NATIONAL CANCER CONTROL PLAN IN THE EMERGING ERA OF NCD

Andreas Ullrich*
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In 2011, Heads of States at the United Nations at its High Level Meeting on Noncommunicable Diseases (NCD) have agreed on a declaration which asks for urgent action to combat NCDs as a paradigm change of the global health agenda. The vision of reducing NCDs stems from the overall premise that cancer CVD diabetes and obstructive lung disease are most cost effectively dealt with as a “package” with preference to control behavioral factors and strengthen health care systems with focus on primary care. One rationale for packaging is that there is a broad overlap of risk reduction between cancer and other NCDs. The underlying model of the NCD UN declaration and its translation into public health practice, the NCD action plan and the NCD monitoring framework (World Health Assembly 2013) is very much in line with CVD control however does not fully reflect the complexity and specificity of cancer prevention and control.

The reduction of individual cancer risk requires more investment in health care delivery such as cancer screening and linking screening to secondary and tertiary care treatment. The cancer control community will need to find strategies to capitalize from the existing NCD package but also to make the differences in cancer control need more visible. The fact that cancer prevention also encompasses infectious causes is a strength which the cancer control community will need to use in terms of partnership building with non-traditional cancer control organizations such as GAVI and synergies with non NCD programs in care delivery such as HIV, vaccination and reproductive health.

Saturday
23 November
2013

Nathaniel Usoro*; Iquo Ibanga; Godwin Ebughe; Iniabasi Ilori
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Objective We aimed to carry out total breast cancer care without blood transfusion using pre-emptive and therapeutic iron therapy, and blood conservation techniques during surgery.

Methods Fifteen female breast cancer patients had initial hemogram done and were placed on oral iron therapy with vitamin adjuncts from the first outpatient visit. Patients with HCT <27% also received intravenous iron dextran using the formula: [normal Hb – actual Hb] x 200 + 500 mg. All patients received 250mg of IV iron dextran with each cycle of chemotherapy. Patients on chemotherapy had a hemogram before each cycle and 3 weeks after the last cycle. Patients for surgery were assessed for blood conservation techniques tailored to each patient. Postoperative hemograms were done on the third day and after 3 weeks.

Results Six patients successfully completed 6 cycles of chemotherapy, and 4 defaulted between the 1st and 5th cycles. Five patients died of non-anemia-related complications of late-stage disease. One patient with early breast cancer and 3 patients with late breast cancer had modified radical mastectomy using blood conservation techniques. All who had surgery recovered satisfactorily and 3 completed 6 cycles of chemotherapy. One patient reacted to iron dextran with pruritus which was relieved with intravenous hydrocortisone. All patients maintained hematocrit >30% throughout chemotherapy and none received blood transfusion.

Conclusion Intravenous iron is practical, safe and effective in blood management of breast cancer patients in a resource-poor environment. Avoiding the hazards and cost of blood transfusion is desirable, and enhanced survival may also be achieved.

Saturday
23 November
2013

Van Aardt, Matthys Cornelis

**HUMAN PAPILLOMAVIRUSES OTHER THAN TYPES 16 OR 18
ASSOCIATED WITH MORE CERVICAL CANCER IN HIV-INFECTED
SOUTH AFRICAN WOMEN**

MC van Aardt*¹; Siri Hovland²; Hannelie Pienaar³; Greta Dreyer¹
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South Africa

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Objectives In South Africa around 10 women die daily from cervical cancer. Human papillomavirus (HPV) types other than HPV 16 and/or 18 may be more prevalent in HIV-infected women.

Methods HPV DNA typing performed on a cohort of women with invasive cervical cancer. Oncogenic and incidental HPV types, histological types and HIV status reported.

Results 299 women included 154 HIV-negative, 77 HIV-positive and HIV unknown for 68. Mean age for HIV-positive women was 14 years younger than HIV-negative women (41.3 vs. 55.8 years, $p < 0.001$). 277 women had squamous cell and 22 had non-squamous cell carcinoma. HPV 16 ($p = 0.002$) was most common in squamous cell group and HPV 18 ($p < 0.001$) in non-squamous cell group. HIV-positive women had more multiple high-risk HPV infections (27% vs. 8%, $p = 0.001$). HPV 16/18 was present in 63%. HPV types other than 16/18 were present in 38% of HIV-negative and 60% of HIV-positive women. HPV 45 was more likely in HIV-positive patients (OR 3.07 95%CI 1.07–8.77).

Conclusion HIV-positive women with cervical cancer are younger, have more multiple type infections and high rates of non-HPV 16/18 type infections. HPV 45 infection is significantly linked to HIV and important for future vaccine developments.

POSTER 185

Saturday
23 November
2013

Van Heerden, Judy

THE ROLE OF PERCUTANEOUS NEPHROSTOMY IN SOUTH AFRICAN WOMEN WITH ADVANCED CERVICAL CANCER AND OBSTRUCTIVE UROPATHY

Judy van Heerden*; Arnold Mouton; Greta Dreyer
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Objectives South Africa women with cervical carcinoma present at younger ages and the majority with advanced stage disease. Certain patients may have a favourable outcome after placement of percutaneous nephrostomies (PN) for obstructive uropathy in cervical cancer.

Methods A retrospective audit was conducted at the Gynaecological Oncology Unit at the University of Pretoria. All patients with primary untreated cervical cancer with renal impairment, secondary to obstructive uropathy were included. Urea, creatinine and potassium were recorded for patients receiving PN before insertion and after treatment.

Results 54 patients were included. The mean age was 49.5 years. The number of patients receiving PN was 28 (51.9%) and 26 (48.1%) women did not. 25% of patients had improvement in renal functions after insertion of PN and 10.3% the renal functions worsened. 50% of these patients received palliative radiotherapy, 7% started therapeutic chemoradiation and 7% of patients completed treatment. Response to treatment was unknown for 21% of patients, 7% showed partial response and 10.7% died of their disease. In the control group, 15.4% of patients had severe renal failure. 7.7% of patients never started treatment and 7.7% received palliative radiotherapy. 11.5% died of their disease. 26.9% of patients without PN fell in the renal failure group, of whom 19.2% received palliative radiotherapy.

Conclusion PN in patients with cervical cancer and obstructive uropathy, even if HIV positive, is a safe procedure with minimal complications. An improvement in renal function was shown after insertion. PN improve the number of patients qualifying for initiation of treatment and completion of treatment.

Saturday
23 November
2013

Van Jaarsveld, Albert

THE ROLE OF ADJUVANT RADIOTHERAPY FOR BREAST CANCER PATIENTS WITH AXILLARY NODE NEGATIVE OR LIMITED NODAL DISEASE AFTER TOTAL MASTECTOMY, AXILLARY NODAL CLEARANCE AND SYSTEMIC THERAPY

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Objectives To evaluate the correlation of loco-regional relapse (LRR), distant metastasis (DM), disease free survival (DFS) and overall survival (OS) in early breast cancer patients treated with or without post mastectomy radiotherapy (PMRT), and compare the outcomes between the node negative and node positive patients.

Methods Seventy two patients, with T1-T2 tumours, 0–3 positive nodes who had mastectomies between 2004 and 2006 at Groote Schuur hospital were analysed. Patient- and treatment-related characteristics were evaluated in terms of LRR and OS through a Cox proportional hazard method. The 5-year Kaplan–Meier DFS and OS rates were analysed.

Results For the entire group, LRR and DM rates were 4% and 10%, respectively, and 5 years DFS and OS rates were 87% and 91%. In the T1–2, N1 group, the 5 year LRR rate with PMRT was 0% vs. 5% without PMRT, DM rate 8% vs. 14%, 5 year DFS 92% vs. 82%, 5 year OS 92% vs. 95%. None of these findings were statistically significant. There was no statistically significant difference in DFS & OS between the N0 & N1 groups. In multivariate analysis LVI, ER positivity and age > 50yrs showed a trend towards influencing OS, although not statistically significant.

Conclusion This study shows no convincing evidence in support of PMRT in early breast cancer. In a resource limited and patient loaded facility, the author does not recommend routine PMRT for T1–2, N1 patients. PMRT has to be reconsidered according to the prognostic factors and the decision has to be made individually.

WORK- SHOP

Free
communication
of abstracts III
11h00–13h00
Saturday
23 November
2013

van Lonkhuijzen, Luc

CISPLATIN FOR THE PALLIATIVE TREATMENT OF CERVICAL CANCER AT MOI TEACHING AND REFERRAL HOSPITAL, ELDORET, KENYA: A TWO YEAR EXPERIENCE

Luc van Lonkhuijzen*¹; Peter Itsura*²; Elkanah Omenge²; Hellen Muliro²;
Barry Rosen³

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²Moi University, Kenya; ³University of Toronto, Canada

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Objective In Sub Saharan Africa access to radiation therapy for women with advanced cervical cancer is poor due to the scarcity of radiation machines. In Kenya there is one public functional cobalt machine for a population of 40 million. The costs both direct and indirect are mostly too high for women. We adapted the use of Cisplatin 50 mg/m² with a 3–4 week interval as an alternative. The effect of this treatment for symptom control is evaluated.

Methods Women with advanced stage cervix cancer who were not able to go for radiotherapy were planned for palliative chemotherapy with cisplatin 50 mg/m² IV in combination with IV fluids and antiemetics. We continued chemotherapy until symptoms had subsided or to a maximum of 6 cycles. All women that were offered palliative chemo were included for this study. Data were collected systematically at every visit and captured in an electronic database. Results are evaluated using a descriptive analysis.

Results In 2011/12 88 women were planned for palliative chemotherapy. 61 went on to have at least one course of chemo. The women not getting chemo progressed quickly, were unfit due to kidney failure, sought treatment elsewhere or were lost to follow up. Stage was distributed as follows: FIGO Stage 1 1.1%, 2A 1.1% (both women delayed treatment and came back with advanced stage), 2B 9.1%, 3A 24%, 3B 55%, 4A 9.1%. The median number of three courses were given (range 1-6) On presentation 88% of women had bleeding, 69% had discharge and 67% complained of pain. For the women that got at least one course of chemo and who could be evaluated during a follow up visit, bleeding improved for 37/43 (86%) women, discharge improved for 28/36 (78%) women and pain improved for 24/35 (69%) women.

Conclusion Prior to initiating this program advanced cervical cancer patients who presented to hospital were transfused and sent home to die. We have demonstrated that palliative chemotherapy with Cisplatin is feasible and effective.

Van Loon, Katherine

**BUILDING A CANCER REGISTRY IN DAR ES SALAAM, TANZANIA:
RESULTS OF A 3-MONTH PILOT STUDY TO EVALUATE COMPLETENESS
OF PATHOLOGY DATA**

Friday
22 November
2013

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Objective This pilot study is part of a broader initiative to build a population-based cancer registry in Dar es Salaam, Tanzania. Recognizing that the value of a cancer registry relies heavily on the quality of its data, we evaluated the completeness of case reporting by pathology departments in Dar es Salaam, Tanzania.

Methods This pilot project focused on pathologically confirmed malignancies from the only three hospitals with pathology departments in Dar es Salaam. All new adult cancer diagnoses during a 3-month period were logged into a central CanReg5[®] database by pathology department personnel using a netbook. At the end of the study period, we evaluated data completeness by conducting a manual audit of paper pathology records at the participating site.

Results One of three pathology departments in Dar es Salaam participated for the full study duration; the other two dropped out for logistical reasons. A total of 620 unique adult cancer cases were reviewed by pathologists at Muhimbili National Hospital during the study period. These cases were reported in either CanReg5[®], in the manual audit, or both. Of these, 400 cases (64.5%) were captured in CanReg5[®], and 457 cases (74.7%) were reported by the audit. The five most common pathologically confirmed cancers were cervical (26.5%), breast (11.3%), prostate (9.7%), oesophageal (7.7%), and Kaposi's sarcoma (6.9%). The median age at cancer diagnosis was 52 (range 18–95).

Conclusions This represents the first data published by a new cancer registry effort in Dar es Salaam, Tanzania. The high incidence of oesophageal cancer is notable and requires further investigation. On-going training and quality control procedures to improve completeness of data are needed, particularly with use of CanReg5[®] as the portal for data entry.

WORK- SHOP

Van Loon, Katherine

OESOPHAGEAL CANCER IN EASTERN AFRICA: AN ANALYSIS FROM FOUR POPULATION-BASED CANCER REGISTRIES

**African Cancer
Registry
Network**

14h30–17h30

Friday

22 November
2013

Katherine Van Loon*

University of California, San Francisco, United States

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Objective While the reported worldwide age-standardized incidence rate (ASR) for oesophageal cancer (OC) is 4.9 cases per 100,000 population per year, this does not reflect the extremely variable geographic distribution of this highly fatal cancer. Currently, more than 80% of cases and deaths from OC occur in developing countries. We report ASRs for OC from four urban populations in eastern Africa.

Methods Data on all cases of OC diagnosed between 2004 and 2008 were obtained from four population-based cancer registries in: Harare, Zimbabwe; Kampala, Uganda; Blantyre, Malawi; and Nairobi, Kenya. Incidence rates at each site were calculated from the incident cases per 100,000 population at risk per year, using local census data. To compare incidence rates across populations, ASRs were weighted according to the World Standard Population.

Results In Harare, 426 male (65%) and 229 (35%) female cases of OC were reported, with ASRs of 65.3 and 38.6, respectively. In Kampala, 196 male (59%) and 137 female (41%) cases were reported, with ASRs of 36.7 and 24.8. In Blantyre, 351 male (59%) and 240 (41%) female cases were reported, with ASRs of 47.2 and 30.5. In Nairobi, 331 male (58%) and 241 female (42%) cases were reported, with ASRs of 23.3 and 21.6. Median age at diagnosis was significantly different among the four populations, ranging from 50 years in Blantyre to 65 years in Harare ($p < 2.2 \times 10^{-16}$). Except in Nairobi, the incidence among males was significantly higher than among females ($p < 0.01$). Squamous cell OC was the predominant histologic subtype at all sites.

Conclusion ASRs for OC at all four sites were remarkably higher than the worldwide ASR. Characterization of the magnitude of this problem is a critical first step towards defining the nature of the high disease burden from OC in eastern Africa. Further investigation to confirm the accuracy of this registry data and to evaluate potential etiologic effects of dietary, lifestyle, and environmental factors is needed.

WORK- SHOP

Free
communication
of abstracts III
11h00–13h00
Saturday
23 November
2013

Vanderburg, Sky

QUALITY AND SUSTAINABILITY IN CANCER REGISTRATION: A SYSTEMATIC REVIEW OF AFRICAN CANCER REGISTRIES

Sky Vanderburg*¹; Leah L Zullig²; Charles Muiruri³; S Yousuf Zafar⁴;
Olola Oneko⁵; John A Bartlett⁶

¹Duke Global Health Institute, USA; ²Health Services Research and Development, Durham VA, USA; ³Dept. of Health Policy and Mgmt, UNC-Chapel Hill, USA; ⁴Duke Global Health Institute; Dept. of Health Policy and Mgmt, UNC-Chapel Hill, USA; ⁵Duke Global Health Institute; Duke Cancer Institute, USA; ⁶Kilimanjaro Christian Medical Centre, Tanzania; **⁶Duke Global Health Institute; Kilimanjaro Christian Medical Centre, United States**

Correspondence Vanderburg, Sky | Email: sbv3@duke.edu

Objective To review scientific literature and other publications resulting from cancer surveillance efforts throughout Africa with the aim of identifying and describing common components of successful cancer registries.

Methods Databases were searched for published scientific articles, data reports, and other gray literature using language optimized for each database. Results were then compiled by citation management software and duplicates were removed, yielding abstracts that were reviewed using predetermined exclusion criteria by two investigators working independently. Full-text publications included after abstract review or those that did not have an abstract were then assessed for quality, after which data was extracted from remaining quality publications.

Results Our search of 4 databases resulted in 2,887 citations, of which 2,551 were remaining after duplicates were removed. Preliminary results reveal that of the relatively few cancer registries in Africa, even fewer are communicating data or other information in peer-reviewed journals or scientific conferences. Further, there is a distinct absence of consistently represented data from African cancer registries in WHO estimates of the global cancer burden. There are, however, certain elements shared by successful African cancer registries that have enabled care providers and policy makers to respond to the threat of cancer in the surveyed population.

Conclusions Despite the lack of cancer registration among most of the population of Africa, there are certain features of successful cancer registries that can serve in a template for the expansion of cancer registration in similar contexts throughout the continent.

POSTER
188

Vanderburg, Sky

**REBUILDING A CANCER REGISTRY IN NORTHERN TANZANIA:
A STEPWISE REVIEW OF 2010–2013**

Friday
22 November
2013

Sky Vanderburg*¹; Michael O Munishi²; Charles Muiruri³; Leah L Zullig⁴; S Yousuf Zafar⁵; Moshi Ntabaye⁶

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Objective In light of recent interest over expanding cancer registration among populations in Africa that have none, we offer a detailed review of initiatives and insights from the reestablishment of a cancer registry at Kilimanjaro Christian Medical Centre (KCMC).

Methods Our efforts center on increasing capacity in 4 strategic areas: personnel, medical recordkeeping, research, and clinical care. By design, we have focused on each area in succession, aiming for sustainable quality at each stage of development while integrating into the existing institutional and national framework for cancer care. During both project planning and implementation, we have also gauged institutional priorities and readiness to change by quantitative and qualitative means.

Results In preparation for the start of data collection in August 2013, 12 individuals have been trained in various disciplines at multiple institutions in the Global South and North, and more are set to begin soon. A strong collaboration with the Medical Records Department has been inaugurated by developing a cancer case form, clinical department-based data collection scheme, and plans for transition to an electronic medical record system. Several KCMC trainees are being mentored in epidemiological and clinical research, 3 clinical oncology symposia have been held at KCMC with experts from East Africa and elsewhere, and preparations for telepathology and teleoncology services are underway.

Conclusions A successful cancer registry relies on trained personnel and infrastructure committed to the collection of quality, complete data, exists in a mutually beneficial relationship with clinical care, and can be replicated in multiple locations throughout Africa.

WORK- SHOP

**Pain
management**
11h00–13h00
Saturday
23 November
2013

Vanderpuye, Verna

FINAL SURVEY RESULTS OF THE INTERNATIONAL COLLABORATIVE PROJECT TO EVALUATE THE AVAILABILITY AND ACCESSIBILITY OF OPIOIDS FOR THE MANAGEMENT OF CANCER PAIN

Verna Vanderpuye*
Korle Bu Teaching Hospital, Ghana

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Introduction The International Collaborative Project to Evaluate the Availability and Accessibility of Opioids for the Management of Cancer Pain has been coordinated by ESMO, EAPC, UICC, PPSG + WHO with the collaboration of regional and international palliative care and oncology societies.

Aim To develop a comprehensive database on the availability and accessibility of opioid medication for the management of cancer pain in: Africa, Asia, Latin America and the Caribbean and Middle East.

Results Between 12/2010–7/2012, 156 reports were submitted from identified reporters in 81 countries and 25 Indian states (58% countries, 83% population). Very few countries provide all 7 opioids on the essential drug list of the IAHPIC (Codeine, morphine, oral IR oxycodone and transdermal fentanyl) and in many countries less than 3/7 drugs are available. In most countries opioids are either not or are weakly subsidised with limited availability. Many countries have highly restrictive regulations limiting entitlement of patients to receive prescriptions, prescriber privileges, impose restrictive limits on duration of prescription and dispensing.

Conclusions In many places across Africa, Asia, Middle East and Latin and Central America governments are failing cancer patients in delivery of adequate pain relief. These data highlight the need for examination of drug control policies and repeal of excessive restrictions which impede this most fundamental aspect of cancer care.

WORK- SHOP

Radiation and chemotherapy

14h30–17h30

Friday

22 November

2013

Vanderpuye, Verna

MANAGING THE COMPLICATIONS OF ANDROGEN DEPRIVATION IN THE MANAGEMENT OF PROSTATE CANCER

Verna Vanderpuye*

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Strong evidence supports the current use of hormonal manipulation in the management of locally advanced and metastatic prostate cancer to improve local control and survival. Undoubtedly many prostate cancer patients in the Africa present with advanced stage disease and chemical hormonal manipulation is becoming a preferred alternative to surgical manipulation. These treatments are not without adverse effects, some leading to mortalities. Patients should be informed about the possibility of developing untoward side effects and should be monitored for neurological, metabolic, musculoskeletal, cardiovascular and sexual morbidities that are associated with androgen deprivation therapies. Interventions may be required to manage or mitigate these side effects so as to reduce iatrogenic morbidity and mortalities. Quality of life should be highly prioritized when treatment choices are being discussed. Knowledge of the health care provider is key to appropriate utilization of treatment options and this lecture hopes to inform providers of the adverse effects of hormonal manipulation used in prostate cancer management.

WORK- SHOP

Vanderpuye, Verna

PALLIATIVE CARE FOR METASTATIC COLORECTAL CANCER

Verna Vanderpuye*

Korle Bu Teaching Hospital, Ghana

Palliative care I

11h00–13h00

Friday

22 November

2013

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There has been an appreciable increase in the quality of life of patients with metastatic colon cancer over the past decade. Survival statistics, indicate median of 12–14 months in the 1990 era, 5 year survival of 10% to median of 30 months and 5 year survival of 30% in the past few years, and even better for resected liver metastases (50% 5 year survival).

To achieve this, patients have to be exposed to multiple lines of chemotherapy and targeted therapies at exorbitant cost as well as specialized surgical procedures, associated with other morbidities. In our environment, most patients are not exposed to or cannot assess these treatments, not to mention the scarcity of resources most importantly skilled human resource. Very few in more affluent African countries have access to these therapies. This leaves our patients with comparatively dismal outlooks and it is our duty to provide comfort and improve quality of life using available resources.

Apart from pain management and psychosocial care, active treatment still aimed at palliation are required to reduce suffering and improve quality of life. These include radiotherapy, surgery and chemotherapy. The risk, benefits and cost effectiveness and affordability for each situation needs to be analyzed. Palliative care for patients diagnosed with metastatic colorectal cancer is becoming an unmet need as colorectal cancer is perceived to be uncommon in Africans. Environmental, dietary and social deviations from the African culture is correlated with the rising incidence if colorectal cancer.

WORK- SHOP

Vanderpuye, Verna

A PILOT SURVEY OF BREAST CANCER MANAGEMENT IN AFRICA

Verna Vanderpuye*

National Center for Radiotherapy, Accra, Ghana

**Free
communication
of abstracts IV**
14h30–17h30
Saturday
23 November
2013

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Objective To portray the current state of breast cancer management in Africa.

Methods We conducted an anonymous online survey of breast cancer management among AORTIC members, using a 42-question structured questionnaire in both English and French.

Results 20 members from 19 facilities in 14 countries responded. Most responders are oncologists. Twelve belong to a multidisciplinary breast cancer team. Radiotherapy equipment is available in 7 facilities but 4 facilities had equipment down time at least once a week. Commonly available chemotherapy drugs include methotrexate, cyclophosphamide, fluorouracil, anthracyclines, vincristine, and taxanes, whereas trastuzumab, vinorelbine, and gemcitabine are only available in few facilities. For diagnostic purposes, core needle biopsy is available in 16 facilities; mammogram in 17 facilities, CT in 15 facilities, MRI in 11 facilities and bone scan in 9 facilities. Immunohistochemistry is available locally in 8 facilities, outside hospital but within the same country in 7 facilities, and outside of country in 4 facilities. In 13 facilities, axillary node dissections are regularly performed. Neoadjuvant chemotherapy is the most common initial therapy for locally advanced breast cancer in 13 facilities. In 3 facilities, receptor status does not affect hormone treatment decision.

Conclusion This survey suggests that AORTIC members continue to make gains in breast cancer management by providing access to multidisciplinary breast cancer care but lack important resources such as immunohistochemistry facilities and reliable radiotherapy services. Focus on In-country training and improvement of health care delivery in relation to cancer care services are urgently needed to provide quality breast cancer treatment in Africa.

POSTER
189

Venter, Vlooi

JOINING HANDS IN CERVICAL SCREENING IN SOUTH AFRICA

Vlooi Venter*
CANSAs, South Africa

Sunday
24 November
2013

Correspondence Venter, Vlooi
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Objective To provide a mobile cervical cancer awareness and screening service in Cacadu, one of the poorest regions in South Africa.

Methods Funding partner CANSAs Private oncology laboratory, 43 Primary Health Facilities, Thinprep Liquid Based cytology, HIV screening with counselling and consent.

Results 2404 women screened, irrespective of age. Red flags: Women ignorant of link between Pap smear and cervical cancer. Emphasise link between poverty and cervical cancer. Women unfamiliar with procedure, indicating no previous screening. Cultural influence negatively impact on result management. Challenges regarding PHC commitment in result management. High percentage of adequacy 76% smears: no abnormalities, 24% with abnormalities. HIV: 76% negative, 24% positive. LGSIL: 54% HIV negative, 44% HIV positive. HGSIL: 40% HIV negative, 59% HIV positive.

Conclusion Ignorance and poor infrastructure remains major challenges High % of HGSIL in HIV positive women poses future health risk. Effective partnerships in fight against cervical cancer are essential.

Vhrithire, Raymond
**MORPHOLOGICAL PATTERN OF LIVER CANCERS IN JOS,
NORTH-CENTRAL, NIGERIA**

Saturday
23 November
2013

Raymond Vhrithire*¹; Godwin Echejoh¹; Barnabas Mandong¹;
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Objective This study was performed to document the histological patterns of liver cancers which occur in Jos located in north-central Nigeria.

Methods The archival records of liver biopsy specimens accessioned at the Department of Histopathology, Jos University Teaching Hospital, Jos, Nigeria, during the ten year period between January 2000 and December 2009, were retrieved and analysed. Detailed demographic data were obtained from the clinical notes. In some instances, the paraffin embedded tissue blocks were retrieved, re-sectioned and stained.

Results Liver cancers constituted 23.5% of the total liver biopsy specimens diagnosed during the study period. Eighty three (94.3%) of these were primary cancers. Hepatocellular carcinoma constituted a bulk of the primary cancers, making up 91.6% (76). Fifty male and 26 female had hepatocellular carcinoma giving a male female ratio of 1.9:1. These have an average age of 46.2 ± 3.9 years and peak frequency (30.03%) within the 41–50 years age bracket. Eighteen (23.7%) occurred on the background of cirrhosis. Trabecular variant of hepatocellular carcinoma was the most common (71.1%), followed by the acinar (13.2%) and the combined trabecular and arcinar pattern (7.9%). Males (68.5%) had the trabecular variant over twice as much as females (31.5%). The less common variants were clear cell (6.6%) and fibrolamellar (1.3%). Other primary cancer types diagnosed included cholangiocarcinoma (2.4%), hepatoblastoma (4.8%) and haemangioendothelioma (1.2%). Metastatic cancers constituted only 5.7% of the total number of cancers of the liver during this period and they were all adenocarcinomas.

Conclusion In north-central Nigeria, the occurrence of liver cancers has remained high. There is, therefore, a persisting need to control the risk factors for liver cancers such hepatitis B viral infections, cirrhosis and aflatoxin exposure.

Sunday
24 November
2013

Edda Vuhahula*
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Background Malignant melanoma has been extensively studied in the white population, but little has been published regarding this neoplasm in black Africans, in whom the tumours are located on the lower extremities. It is however unclear whether such tumours are more aggressive than those in white population.

Objectives Since there is lack of information regarding tumour biology and behaviour of melanomas in exclusively black African patients, the aim of this study was to examine the expression of Ki-67 and micro vessel density in series of malignant melanoma from black Africans and explore any correlation with conventional prognostic indices.

Methodology: Formalin fixed and paraffin embedded tissue samples were retrieved from the files of the Department of Histopathology of Muhimbili University Hospital. These included 28 cases of primary cutaneous malignant melanoma exclusively from black African patients. From haematoxylin and eosin stained section the following variables were evaluated; histological thickness, level of invasion, presence of ulceration and vascular invasion. Immunohistochemical staining was carried out using standard streptavidin-biotin-peroxidase method on formalin fixed specimens using Ki-67 antibodies to assess proliferative rate and factor VIII for micro vessel density. Analyses were performed using the statistical package SPSS.

Results The tumours had a median thickness of 6.4 mm, ulceration was present in 71% and vascular invasion in 36% Proliferative activity was high with median of 41%, whereas angiogenesis as estimated by micro vessel density, was significantly associated with vascular invasion ($p=0.022$), supporting its role in the progression of these tumours.

Conclusion These results indicate that, melanoma located on the lower extremities in black Africans shows features of aggressiveness, such as high proliferative activity and angiogenesis which was significantly associated with vascular invasion. The study also indicated that the diagnosis is delayed among black Africans.

WORK- SHOP

Paediatric oncology

11h00–13h00

Sunday

24 November

2013

Vujanic, Gordan

THE ROLE OF THE PATHOLOGIST IN THE DIAGNOSIS OF NEPHROBLASTOMA

Gordan Vujanic*

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Treatment of nephroblastoma and other renal tumours of childhood is based on their histological diagnosis and stage. Since the SIOP approach includes giving pre-operative chemotherapy without histological diagnosis, the pathologist deals with a nephrectomy specimen that is altered with pre-operative chemotherapy. He/she has to be familiar with chemotherapy-induced changes, to assess their amount (first on gross and then on histological examination) and to follow the protocol for examining and sampling the tumour, as it is critical for accurate sub-typing and staging.

The first task is to establish the diagnosis which may be challenging due to chemotherapy-induced changes. Secondly, if nephroblastoma is diagnosed, it has to be further sub-classified on the basis of the established criteria which differ from those used for primarily operated tumours. The sub-typing of nephroblastoma is very important as it determines to which risk group the tumour belongs (low, intermediate or high risk). Finally, a treatment group is determined by the stage which is assigned at nephrectomy and bearing in mind the criteria which again differ from those for primarily operated tumours.

Since nephroblastoma is a relatively rare tumour (100 cases are diagnosed annually in the U.K., population of ~60 million), pathologist's experience is rather limited resulting in inaccuracies in diagnosis/sub-typing and staging. However, rapid central pathology review makes sure that children with renal tumours are treated appropriately.

Saturday
23 November
2013

Wakuma, Tariku

BREAST TUMORS IN RURAL ETHIOPIA: PATIENT AND TUMOR CHARACTERISTICS OF 65 CONSECUTIVE CASES IN 2010 INCLUDING 41% MALIGNANCIES

Tariku Wakuma*¹; Eva Johanna Kantelhardt*²; Adamu Addissie³; Christoph Thomssen²; Steffen Hauptmann⁴

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Objective Breast tumors are common also in rural parts of Africa. Surgery is often done without pathological diagnosis. In developing countries, few studies are available about clinical and pathological features of benign and malignant breast diseases in the rural setting. In this study we wanted to determine histological verification of all consecutive breast tumor cases in a very remote rural hospital in Ethiopia serving 500.000 people of mainly the same ethnicity (Oromo).

Method Ethical approval was obtained. In 2010, 66 female patients with breast tumors were enrolled into the study. Clinical and pathological information was documented. In case of malignancy, ER, PR and HER2 receptor status were determined. The data was coded and analyzed with STATA software.

Results Patients' age was 15–85 years (mean 36). There were 27 cancer cases and 38 benign tumors. The most common benign tumors were fibroadenoma (n=16) and mastopathia (n=6). Patients with benign lesions were 15–55 years (mean 28 years), with malignant lesions 19–85 years (mean 48 years) (p<0.036). Breast cancer below age 35 years was rare (n=4). Most patients with breast cancer presented stage 3 (63%). Of 25 breast cancers with immunohistochemistry available, 64% were hormone receptor positive (12% ER positive, 56% PR-positive); 76% were HER2-negative.

Conclusion In our series of symptomatic breast tumors we found a higher proportion of breast cancer than expected. Age was associated with a higher probability of malignant disease. Since patients often present with late stage, women and caregivers should be educated for higher awareness with regard to this disease. In contrast to other data, we observed a rather high proportion of hormone receptor positive disease such that endocrine therapy should be considered more often as a valuable adjuvant treatment.

WORK- SHOP

**AORTIC/IUBMB
oesophageal
cancer
symposium**
14h30–17h30
Wednesday
20 November

Wang, Guiqi **ENDOSCOPIC TREATMENT**

Guiqi Wang*
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Esophageal cancer (EC) is one of the leading cancers in China, resulting in 2.4 million and 1.2 million years of life lost in males and females in 2008. Nearly 20% of new cases and cancer deaths were from EC in rural China. In clinics, more than 90% EC patients were diagnosed in medium or late stage and the 5-year survival rate was 15% consistently.

For the disparities of health resources between urban and rural China, it is meaningful to promote an innovative program in these rural areas of reducing the incidence/mortality and increasing early detection. Since 2001, Chinese government has led an expert panel to investigate the techniques of detecting early EC, risk of precancerous lesion on esophagus, regression and progression of precancerous, comprehensive treatment standard for early EC and popularization of techniques in early detection and treatment for EC in the high risk areas.

The innovative screening program targets the population aged 40 to 69, to detect the cases with mild, moderate, severe dysplasia, carcinoma in-situ and invasive cancer on esophagus through endoscopy with iodine staining and biopsy. The cases detected with severe dysplasia are assigned treatments; the others of less severe lesions are followed up. In 2005, screening program for EC was initiated in 8 counties of rural China. Now the screening field has increased to 71 sites. From 2006 to 2012, the program covered 497,069 persons overall, detected 6,963 cases, 76% detection in early stage and 75% cases receiving therapies effectively. The screening program focuses on high risk areas of EC, detects precancerous cases effectively, provides treatments to the cases, and achieves a notable reduction of late stage EC. Since the program initiation, 2100 health professionals from 28 provinces received training in endoscope, pathology, epidemiology and treatments for early EC.

WORK- SHOP

Free
communication
of abstracts III
11h00–13h00
Saturday
23 November
2013

Wanjuki, John

PREVALENCE AND MANAGEMENT OF CANCER PAIN IN AMBULATORY PATIENTS AT KENYATTA NATIONAL HOSPITAL

John Wanjuki*¹; Nicholas Abinya¹; Erastus Amayo¹; Esther Munyoro²

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Objective There are few studies in Africa on prevalence or management of cancer pain. This study aimed to determine the prevalence and management of cancer pain in patients in a Kenyan public referral hospital and correlate this with patient characteristics.

Methods Cross sectional descriptive study carried out in the hemato-oncology and radio-oncology clinics of Kenyatta National Hospital. A total of 520 ambulatory cancer patients were recruited and interviewed using the Brief Pain Inventory Questionnaire for prevalence and severity of pain. Performance status, cancer characteristics analgesic drugs used and adjuvant therapies were recorded. The adequacy of pain management was calculated using the Pain Management Index. The relationship between the presence of pain and adequacy of pain management with age, gender, performance status and cancer stage was evaluated using bi-variate and multivariate analysis.

Results Prevalence of cancer pain was found to be 38.5% (200/520). Forty seven percent (94/200) of the cancer patients with pain were on non-opioid drugs, while 13% (26/200) were on no analgesics. Only 10% (21/200) were on strong opioids. Pain was inadequately managed in 65% (131/200) of cancer patients. Metastatic cancer was associated with more likelihood of cancer pain (Odds ratio 1.9; 95% CI 1.0–3.5, $P=0.044$). A poorer functional status was associated with more likelihood of presence of cancer pain (Odds ratio 4.4; 95% CI 2.6–7.3, $P<0.001$). Presence of metastatic disease was associated with less likelihood of inadequate pain management. (Odds ratio 0.5; 95% CI 0.3–0.99, $P=0.045$).

Conclusions Cancer pain is common in patients at Kenyatta National Hospital and its management is inadequate despite clear WHO guidelines. Action should be taken to include cancer pain screening in management of cancer patients. Developing local cancer symptom management guidelines and increasing medical staff awareness on cancer pain management should be undertaken.

POSTER 193

Sunday
24 November
2013

Wata, David

DETERMINANTS OF BREAST CANCER TREATMENT OUTCOMES AT KENYATTA NATIONAL HOSPITAL

David Wata*¹; GO Osanjo²; MO Oluko²; AN Guantai²

¹Kenyatta National Hospital, Kenya; ²School of Pharmacy, University of Nairobi, Kenya

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Objective To determine the factors that influence the treatment outcomes in breast cancer patients at Kenyatta National Hospital.

Methods The study was designed as a hospital based retrospective descriptive study. Patients diagnosed with breast cancer and who had their first visit at the Kenyatta National Hospital Radiotherapy department in 2008 were identified. A total of 219 patient records were sampled using systematic sampling. Data were entered into a data collection tool then analysed using STATA software.

Results In bivariate analyses; cancer stage 2A (OR 0.29, 95% CI 0.12–0.77) and stage 2B (OR 0.29, 95% CI 0.12–0.77), presence of ER (OR 0.24, 95% CI 0.12–0.77), presence of PR (OR 0.26, 95% CI 0.09–0.72), HER-2 (OR 0.05, 95% CI 0.003–0.84), tamoxifen treatment (OR 0.34, 95% CI 0.19–0.62) and presence tamoxifen side effects (OR 0.34, 95% CI 0.12–0.91) were factors less likely to be associated with development of metastasis. In multivariate analysis, HIV positive (OR 0.004, 95% CI 0.002–0.75), presence of estrogen (OR 0.23, 95% CI 0.08–0.64) and human epidermal growth factor receptor (OR 2.53, 95% CI 1.64–3.91) and obesity (OR 2.53, 95% CI 1.64–3.91) were the only independent factors influencing development of metastasis after treatment.

Conclusion Clinicians should be aware of the factors that influence breast cancer treatment outcomes so that they may individualise treatment of the patients according to these factors.

WORK- SHOP

Free
communication
of abstracts V
11h00–13h00
Sunday
24 November
2013

Watson-Jones, Deborah

REACHING THE UNREACHABLE: CAN HPV VACCINATION FOR CERVICAL CANCER PREVENTION BE DELIVERED TO HARD-TO-REACH POPULATIONS IN KENYA?

Deborah Watson-Jones¹; Nelly Mugo^{*2}; Shelley Lees³; Muthoni Mathai⁴;
Sophie Vusha⁵; David Ross³

¹Mwanza Intervention Trials Unit, Tanzania; ²KEMRI, Kenya; ³London School of
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⁵Kenyatta National Hospital, Kenya

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Objective To inform Kenya's national cervical cancer control strategy, we conducted formative research on human papillomavirus (HPV) vaccination with slum dwellers and nomadic pastoralists who comprise a significant proportion of the country's population but who are difficult to reach with public health interventions.

Methods A situation assessment and qualitative research was conducted in a large Nairobi slum and in nomadic Maasai communities in Kajiado district, to explore potential support and barriers for the uptake of HPV vaccination. In total 14 focus group discussions (FGDs) and 28 semi-structured interviews (SSIs) were conducted with health workers, teachers, parents, youth, and community and religious leaders covered sexual behaviour, knowledge of cervical cancer and HPV, parental consent, potential venues for vaccine uptake and intention to have daughters vaccinated.

Results Both study sites reported high rates of school absenteeism and drop-out, early marriage, lack of parental support, difficult access, population mobility and distance from services. Despite a lack of knowledge about cervical cancer and HPV, communities were interested in receiving HPV vaccination. A number of reported potential vaccination barriers were common to other studies on HPV vaccine acceptability. School-based vaccination, supplemented by out-reach activities, and adequate social mobilisation were considered important facilitating factors to achieve high coverage. There was some support for vaccine campaigns.

Conclusions Delivering HPV vaccination should be acceptable and feasible in such hard-to-reach communities but may require flexible delivery strategies. Offering vaccine through multiple venues and potentially using a campaign approach may be needed to reach these communities with adequate vaccine coverage.

WORK- SHOP

Wayengera, Misaki

ZINC FINGER NUCLEASES FOR TARGET MUTAGENESIS OF HIGH-RISK HPVS AND REVERSE CERVICAL NEOPLASIA

**Joint AORTIC-
ASCO**

symposium

14h30–17h30

Saturday

23 November

2013

Misaki Wayengera*

Makerere University College of Health Sciences, Uganda

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Objective Majority cases of cervical cancer are due to infection with high-risk human papillomaviruses (HPVs). High-risk HPVs – through their oncogenes E6 and E7 induce malignant transformation and promote tumor growth within normal epithelial cells of the cervical mucosa. Specifically, the E6 and E7 oncogenes immortalize cervical cells by mediating degradation of p53 and the retinoblastoma protein (pRB) respectively. While vaccines to prevent primary infection with high-risk HPVs have recently been deployed, there are no clinically approved HPV-directed therapies against cervical cancer. We hypothesized that “target mutagenesis of the E6 and E7 oncogenes of high-risk HPV within cervical cancer cells can reverse neoplasia”. This study aimed to identify and characterize ZFN for target mutagenesis of the E6 and E7 oncogenes HPV types 16 & 18.

Methods In-silico genome-wide analyses.

Results Using ZiFiT software and the complete genomes of HPV types 16 and 18, we computationally generated the consensus amino acid sequences of the DNA-binding domains (F1, F2, & F3) of (i) 296 & 327 contextually unpaired (or single) three zinc-finger arrays (sZFAs) and (ii) 9 & 13 contextually paired (left and right) three-zinc-finger arrays (pZFAs) that bind genomic DNA of HPV-types 16 and 18 respectively, inclusive of the E7 gene (s/pZFAHpV/E7). In the absence of contextually paired three-zinc-finger arrays (pZFAs) that bind DNA corresponding to the genomic context of the E6 gene of either HPV type, we derived the DNA binding domains of another set of 9 & 14 contextually unpaired E6 gene-binding ZFAs (sZFAE6) to aid the future quest for paired ZFAs to target E6 gene sequences in both HPV types studied (pZFAE6).

Conclusions With further optimization, these model ZFNs offer the opportunity to induce target-mutagenesis and gene-therapeutic reversal of cervical neoplasia associated with HPV types 16 & 18.

Wekesa Wamukaya, Job
PSYCHOLOGICAL EFFECTS AMONG CANCER PATIENTS

Job Wekesa Wamukaya*; Ann Jebet*
Moi Teaching and Referral Hospital, Kenya

Saturday
23 November
2013

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In our oncology department many parties experience different psychosocial effects.

Objects 1) To highlight the psychosocial effects experienced by cancer patients in our hospital, and 2) To highlight the interventions being undertaken.

Methodology This was done through nurse patients' interaction and observation.

Effects 1) Denial: Refusal of cancer diagnosis; 2) Confusion: Non comprehension of information; 3) Shame: Shyness to disclosure; 4) Quality: Feeling of having caused the cancer; 5) Isolation: Self isolation or by others; 6) Rejection: By the spouse or family, friends leading to abandonment; 7) Stress: From the cancer, smell, treatment cost, disfigurement; 8) Loss: Employment, love, hair, limbs through amputation; and 9) Depression: Feeling low.

Interventions 1) Counselling: to reduce the denial and accept reality; 2) Confusion: Empathy, closeness and counselling; 3) Shame: Encouraging patients to talk freely; 4) Guilty: Explanation about cancer to bring understanding; 5) Isolation: Support and understanding; 6) Rejection: Support from others around; 7) Stress: Patient education and support for what they cannot perform; 8) Loss: Patients education on drugs side effects use of prosthesis; 9) Depression: Counselling with serve form psychiatric; 10) Psychosocial: support groups have been formed; and 11) Day care: palliative care initiative.

Challenges 1) Cost of investigation and treatment; 2) Cultural beliefs; 3) Lack of trained personnel in cancer; 4) Alternative medicine; and 5) Lack of cancer centers.

Conclusion Psychosocial effects when well taken care of relieves cancer patients from suffering.

WORK- SHOP

AORTIC/IUBMB
oesophageal
cancer
symposium
09h00–10h30
Thursday
21 November

White, Russell

STENTING FOR PALLIATION OF ADVANCED ESOPHAGEAL SQUAMOUS CELL CARCINOMA

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Esophageal squamous cell carcinoma (ESCC) is an endemic disease in many parts of East and Southern Africa. At the present time, a majority of patients present at a late stage of the disease process, and cure is not a realistic goal. Cost-effective palliation, therefore, becomes the focus. Dysphagia is usually the most common disabling symptom of ESCC, and very often leads to death due to malnutrition. While a variety of techniques are available to palliate malignant dysphagia, endoscopic stenting has emerged as one of the most expedient and cost-effective methods to restore swallowing ability.

We examine our experience in endoscopically placing more than 2,500 self-expanding metal stents (SEMS). Between 1999 and 2007, 1,000 SEMS were placed using a direct vision technique (Group A), requiring simultaneous passage of an endoscope and a stent delivery system. Between 2008 and 2012, 825 SEMS were placed using a direct measurement technique (Group C). Early complication rates were 6% and 3% respectively, while late complications were 19% and 13% respectively. Mortality rates were 1.9% and 1% respectively. The majority of patients were able to maintain normal or good swallowing until the time of death. Endoscopic placement of SEMS provides rapid, sustainable palliation of malignant dysphagia in a cost-effective fashion, and should be considered as first-line therapy for dysphagia due to ESCC in patients who are not considered candidates for surgical resection.

WORK- SHOP

BIG CAT

grants II

11h00–13h00

Friday

22 November

2013

Wiafe, Seth

SOCIOCULTURAL FACTORS ON HEALTH BEHAVIOUR TOWARDS EARLY DETECTION OF BREAST CANCER ON WOMEN WHO WERE EXPOSED TO BREAST CANCER EDUCATION IN GHANA

Seth Wiafe*

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Breast cancer is an emerging public health problem in Ghana. It is the leading malignancy accounting for nearly 17% of all cancers and the incidence appears to be on the increase. Late presentation is considered as the hallmark of the disease where an average of 60% of women report either stage three or four, and stay with it for at least ten months before seeking medical consultation. Ghanaian women are diagnosed at earlier age (40–49 years) with high-grade tumors that are more aggressive than white women.

While biological differences are noted as major risk factors, sociocultural factors may influence stage at diagnosis. Efforts to control breast cancer have focused on early detection based on the fact that diagnosing breast cancer at an early stage can reduce mortality. Acting on the recommendation by the Breast Health Global Initiative panel on implementation of strategies to optimize breast cancer management in low and middle-income countries, Breast Care International (BCI), a Ghana based nongovernmental organization is leading an effort to promote early detection for women using various methodologies including oral presentation, survivor stories, and resource brochures since 2002 in rural communities. Although, health education is necessary for early detection, little research has been done regarding the impact of awareness programs in breast cancer control at the community level.

This study is plans to evaluate the impact of sociocultural factors on breast cancer education program provided by BCI on health behavior towards early detection of breast cancer in communities that received breast cancer education.

WORK- SHOP

Free
communication
of abstracts III
11h00–13h00
Saturday
23 November
2013

Wiebe, Lauren A

RELIABILITY AND ACCEPTABILITY OF THE JERRYCAN PAIN SCALE FOR PATIENTS IN HOSPICE AFRICA UGANDA (HAU)

Lauren Wiebe*¹; Kathleen Hannan¹; Anne Merriman²; Eddie Mwebesa²; Ludoviko Zirimenya²; Tiffany Frazer³

¹Medical College of Wisconsin, United States; ²Hospice Africa Uganda, Uganda; ³MCW Institute for Health and Society, United States

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Objective The purpose was to evaluate a novel scale for measuring pain in patients at Hospice Africa Uganda. The Jerrycan Pain Scale (JPS) shows six 20-liter jugs or “jerrycans” from empty increasing to full, representing the intensity of pain. The hypothesis was that JPS would have statistical agreement with two validated pain scales: the numerical hand scale (NHS) and Wong-Baker FACES (WBF).

Methods MCW IRB and HAU-Research Ethics Committee approval was obtained. In 2012, patients 4 years or older were screened, and either the patient or guardian provided consent in English or Luganda. Subjects were shown the three scales and asked to rate their pain on each simultaneously. Assessment was repeated at subsequent visits with each patient’s preference obtained at final visit.

Results A total of 40 patients (18 paediatric, 22 adult) were enrolled over five weeks. A patient-weighted weighted kappa (PWWK) statistic was used to evaluate inter-scale agreement. For ages 4–18, the NHS-to-JPS and WBF-to-JPS each showed almost perfect agreement with PWWK of 0.873 and 0.815, respectively. For adults, PWWK of comparisons NHS-to-JPS and WBF-to-JPS were 0.805 and 0.837 respectively. When asked scale preference, 75% of adults preferred JPS over NHS or WBF; 86% of children preferred the JPS.

Conclusion The JPS showed excellent statistical agreement to two established pain scales in both paediatric and adults patients at HAU. JPS is a rigorous, reliable alternative for self-report of pain in Uganda. An overwhelming percentage of patients preferred the JPS, showing it to be acceptable and preferable for patients culturally familiar with the jerrycan.

Sunday
24 November
2013

Willem, Pascale

B-CELL LYMPHOMA UNCLASSIFIABLE WITH FEATURES INTERMEDIATE BETWEEN DIFFUSE LARGE B-CELL LYMPHOMA AND BURKITT LYMPHOMA, A COMMON DIAGNOSIS IN HIV ASSOCIATED LYMPHOMA

Pascale Willem*¹; Yvonne Perner²; Tracey Wiggill²

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Introduction B-cell lymphoma (BCL) unclassifiable with features intermediate between diffuse large B-cell lymphoma (DLBCL) and Burkitt lymphoma (BL) is an uncommon diagnosis in a non HIV context. By contrast we see an increasing number of HIV associated aggressive lymphomas that present with atypical features, L3-like or intermediate size cells on morphology and additional features that best fit the diagnosis of the intermediate class of lymphoma DLBCL/BL introduced in the WHO 2008 classification.

Methods We report on a series of 20 patients. The diagnosis of BCL unclassifiable with intermediate features between DLBCL and BL was made based on the WHO 2008 classification criteria. We reviewed the morphology. Cytogenetics studies were performed using standard methods and GTC banding, chromosomes were classified according to ISCN 2013. Fluorescence in situ hybridization (FISH) was performed using LSI c-MYC/IGH dual colour dual fusion translocation probe and/or LSI c-MYC dual-colour break apart rearrangement probes, LSI BCL6 dual colour break apart rearrangement probes and LSI BCL2/IGH dual colour dual fusion translocation probe. Flow cytometry and immunohistochemistry were performed as per standard protocols.

Results The age range was 6-43 years. All cases showed a complex karyotype with two or more chromosomal aberrations and a MYC rearrangement in 19 cases. Secondary aberrations involved gains of chromosome 1q, 7 and 13. Double hit lymphoma was seen in 7 cases and only involved MYC and BCL6. Immunophenotype showed a CD19 and CD20 B-cell lineages.

Conclusion This study illustrates a morphological range of extra-oral PBL including plasmacytic differentiation, highlighting the difficulty in distinction from PCM. There is an almost consistent association of extra-oral PBL with EBV in patients with retroviral disease.

**POSTER
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Williams, Karen Patricia

**KIN KEEPER: A REAL WORLD APPROACH TO ADDRESSING BREAST
AND CERVICAL CANCER DISPARITIES**

Karen Patricia Williams*
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Friday
22 November
2013

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The Kin KeeperSM Cancer Prevention Intervention has combined the best of community based participatory research with scientific rigor all in an effort to increase the breast and cervical cancer screening rates as well as the health literacy of Black, Latina and Arab women. The science behind this unique female-family focused model will be presented including instrument development, intervention fidelity and costs. By design the model works with community health workers (lay people) who racially and ethnically mirror the female research participants. The instruments used measure functionally breast and cervical cancer literacy and have been culturally and linguistically translated. Since the community health workers read aloud all items on the instruments, adult women are able to participate in the research regardless of their reading ability. The practicality of the model, which builds on the available infrastructure, is ideal for resource limited health programs.

PLENARY

Environment and occupation in cancer

09h10–10h30

Sunday

24 November
2013

Winde, Frank

MAPPING HUMAN EXPOSURE TO MINING-RELATED POLLUTION OF URANIUM AND OTHER TOXIC METALS IN GOLDFIELDS OF THE WITWATERSRAND

Frank Winde*; Emile Hoffmann; Ewald Erasmus; Leslie Stoch
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Deep level gold mining in the Witwatersrand basin of South Africa in more than 125 years produced an estimated 7 billion tons of finely ground and leached waste rock (tailings) which now cover some 400 km² of surface area often located in densely populated regions such as the metropolitan area of Greater Johannesburg. While much of the original gold is extracted from the ore other metals such as the radioactive and chemo-toxic element uranium which accompanies gold in many ore bodies are left in the deposited tailings at considerable concentrations. Along with windblown dust settling on nearby residential areas and dissolved in seepage flowing from tailings dams into underlying aquifers and adjacent streams these metals pose a potential health risk to affected residents.

This paper forms part of a collaborative pilot study initiated by the WHO's International Agency for Research on Cancer to explore the feasibility of a large-scale epidemiologic study into the cancer burden of exposed populations. It outlines the methodology used to map the extent and spatial distribution of mining-related contamination as well as exposed populations using a Geographical Information System (GIS).

The approach is based on large amounts of analytical data extracted from published and unpublished sources that were geo-referenced and incorporated into GIS and the subsequent identification of exposed populations. For the latter a range of different exposure scenarios such as inhalation of windblown dust, consumption of contaminated water, geophagia and ingestion of polluted food are employed in order to identify suitable sampling locations that allow one to distinguish between different groups of recipients in terms of race and socio-economic conditions as well as the significance of the various exposure pathways.

WORK- SHOP

Free
communication
of abstracts II
14h30–17h30
Friday
22 November
2013

Wishahi, Mohamed

UROTHELIAL CARCINOMA OF THE URINARY BLADDER MIXED WITH SQUAMOUS DIFFERENTIATION OR SQUAMOUS CELL CARCINOMA IN AREAS WITH SCHISTOSOMIASIS IN AFRICA IS SHOWING HIGH RISK OF RECURRENCE AND POOR

Mohamed Wishahi*; Ahmed Mehena; Hossam Elganzoury; Amr Elkholy
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Objectives In areas endemic with schistosomiasis (Sch), bladder cancer is the first malignancy in men and fourth in women. Sch leads to variant histologic patterns which manifest as squamous cell carcinoma (SCC) or squamous differentiation (Sq.D) We evaluated the clinical outcome after radical cystectomy (RC) in patients with urothelial carcinoma (UC) mixed with SCC or Sq.D, Comparison was done with two arms of pure UC and pure SCC, indication for RC was muscle-invasive-disease, evaluation included recurrence, metastases, and overall survival.

Patient and Methods We revised data on 627 patients treated with RC for muscle-invasive-disease, of these patients 427 had mixed UC with SCC/SqD, two comparative arms were 100 patients with UC, and 100 patients had SCC. Follow up was on 8 months, 3 years, and 5 years to detect recurrence, metastasis, and overall survival in the three groups.

Results There were statistically significant in aggressiveness in the three groups regarding recurrence, metastasis, and overall survival. Overall survival with mixed tumours was significantly lower than pure UC or SCC, recurrence and metastases were higher in mixed tumour .was independent factor for poor prognosis and low survival.

Conclusion Mixed tumour was independent factor for poor prognosis and low survival in muscle-invasive-disease of carcinoma of the bladder. Presence of mixed histologic pattern of UC with SCC/ SqD had a worse prognosis and poor survival compared to pure UC or SCC. Diagnosis of divert histologic pattern in is crucial to detect the mixed variant to plan proper strategy that should include adjuvant chemo-radiotherapy.

WORK- SHOP

AIDS-related malignancies

11h00–13h00

Sunday

24 November

2013

Yarchoan, Robert

CURRENT AND FUTURE CHALLENGES IN HIV MALIGNANCY RESEARCH IN AFRICA

Robert Yarchoan*; Thomas S Uldrick; Mark N Polizzotto; Edward L Trimble;
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Sub-Saharan Africa has a high incidence of cancers associated with HIV. Most are caused by other oncogenic viruses such as Kaposi sarcoma-associated herpes virus (KSHV). These viruses have a high prevalence in Africa, and the HIV pandemic has markedly increased the incidence of cancers caused by them. The widespread use of antiretroviral therapy will likely change the pattern of HIV malignancies.

While progress has been made, there is much to be learned about the interaction of HIV, oncogenic viruses, and other factors such as inflammation from malaria in the pathogenesis of HIV-associated tumors. Moreover, there is an urgent need for better means to prevent, diagnose, and treat these cancers.

To address these needs, the US NCI is working with researchers in several African countries to develop research capacity, to assess the epidemiology of HIV-associated tumors, to develop better tools to prevent and diagnose these tumors, and to conduct clinical trials aimed at optimizing therapy. Also, intramural NCI research in Bethesda, Maryland include studies that can inform our understanding of HIV-malignancies in Africa. For example, the HIV and AIDS Malignancy Branch has been investigating KSHV-associated multicentric Castleman disease, a lethal but treatable lymphoproliferative disorder in which the principal manifestations are severe inflammatory symptoms. Diagnosis of MCD is challenging.

We have seen a number of cases in African immigrants to the US, yet there are very few cases reported in Africa suggesting that it is misdiagnosed or underdiagnosed. This research will be discussed, with the goal of enhancing awareness of this disorder.

WORK- SHOP

Yennu, Sriram

STRATEGIES TO PROVIDE EARLY REFERRAL TO PALLIATIVE CARE SO AS TO IMPROVE QUALITY CANCER CARE

Palliative care I

11h00–13h00

Friday

22 November

2013

Sriram Yennu*

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Patients with life-limiting illness such as advanced cancer, end stage AIDS, end stage heart failure suffer from severe physical and psycho-social-spiritual distress. These distressed patients and their families require quality care such as timely management of pain and other symptoms and advance planning discussion. Palliative Care utilizing a holistic, interdisciplinary approach is capable of improving such care. Recent studies on the role of Palliative Care confirm its effectiveness on outcomes such quality of life and health care utilization. However, late referral is the most critical concern at this time. Using an evidence based approach the speaker will discuss various components of palliative care, evidence of palliative care in improving quality care outcomes and strategies to integrate Palliative Care earlier at the time of diagnosis of life limiting cancer.

WORK- SHOP

Free
communication
of abstracts II
14h30–17h30
Friday
22 November
2013

Yonas, Bekuretsion

BREAST CANCER SUBTYPES IN ETHIOPIA: RESULTS OF 46 BREAST CANCER BIOPSIES 2006–2010 FROM ADDIS ABABA UNIVERSITY HOSPITAL IN ETHIOPIA

Bekuretsion Yonas*¹; Eva Johanna Kantelhardt²; Erdme Knauf²; Andreas Stang²; Assefa Mathewos*¹

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Objective Breast cancer is an emerging burden of disease worldwide. Most scientific knowledge is derived from research done at academic institutions in Europe and North America. Recent surveys show fundamental differences concerning the presentation of the disease in African countries e.g. more triple negative cases. Of 1273 breast cancer cases diagnosed between 2006 and 2010 we stained 46 specimen for estrogen, progesterone, HER2 and basal markers to find out about biologic subtypes.

Methods All patients diagnosed with breast cancer 2006–2010 at Tikur Anbessa University Hospital were screened for tumor blocks available. Ethical approval was obtained. Clinical information from patients was taken from patient files. Distant metastasis-free survival was available with a median follow-up time of 23 months. Immunohistochemistry was done using an automatic staining machine.

Results Median age was 40 (22–68yrs), mean number of children 3.8, median tumor size was 6.4cm, stage 1/2 and 3 were seen in 20% and 41% respectively. The majority of tumors were ductal and grade 2 (60%). Of 40 tumors with adequate immunohistochemistry staining, 48% were hormone receptor-positive, and 29% were HER2-positive. When using immunohistochemistry results to determine tumor biology we found within hormone-receptor positive tumors 28% luminal A phenotype (HER2-negative), 20% luminal B phenotype (HER2-/Ki67-positive). In hormone-receptor negative patients we found 22% HER2-positive and 30% triple negative tumors. Median follow-up was 18.4 months. Kaplan–Meier estimates of distant metastasis-free survival after 2 years were 68%.

Conclusion This is the first study to describe breast cancer subtypes by immunohistochemistry from Ethiopia. Considering the limitation of the small sample size, our findings suggest that 1/2 of patients may benefit from hormonal therapy and almost 30% are of HER2-positive. This has to be taken into account when considering therapeutic options.

WORK- SHOP

Oncology nursing

14h30–17h30

Saturday

23 November

2013

Young, Annie

**ANTI-CANCER THERAPIES IN RESOURCE-RESTRICTED SETTINGS.
MANAGEMENT OF TOXICITY: FOCUS ON ADVANCED DISEASE**

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Background The administration of chemotherapy in resource-restricted settings in Africa is hugely variable and brings some different challenges in comparison to resource-rich countries. It is well recognised that cytotoxic chemotherapy may have significant side effects for the patient, at times resulting in dose reduction or stopping treatment.

Discussion with the audience Specialist chemotherapy nurses are extremely knowledgeable in the management of chemotherapy-associated toxicity; however, there are often too few expert staff to meet the patient demand. Health and safety for the patients and staff; physical and emotional wellbeing of the patient prior to treatment; patient and carer information; ensuring the most effective drugs and doses are bought and administered and the management of the common side effects of chemotherapy in resource-restricted settings in Africa, will be debated with the audience participants. The optimal management of toxicity for the individual patients and in specific settings will be elicited from the discussion.

WORK- SHOP

**MD Anderson
global initiative
for cancer care**
14h30–17h30
Thursday
21 November
2013

Zafereo, Mark

DEVELOPING GUIDELINES FOR THYROID SURGERY IN VARYING SETTINGS ON THE CONTINENT OF AFRICA

Mark Zafereo*
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This session will explore thyroid surgery in diverse settings on the African continent. Published evidence suggests that thyroid surgery can be performed safely with minimal complications in both well developed and less developed environments. Preoperative, intraoperative, and postoperative considerations in thyroid surgery are largely defined by the patient setting (high-resource versus low-resource) and expected tumor pathology (benign goiter versus thyroid malignancy). Potential surgical indications for patients with thyroid disease include known or suspected thyroid malignancy, difficulty breathing, autonomic hyperfunction, dysphagia, or cosmetic concern associated with a large goiter. However, surgery for thyroid disease must take into consideration potential patient and local medical care system socioeconomic limitations in which surgical intervention may cause more harm than good. We will present published data on thyroid disease and thyroid surgery in high-resource and low-resource settings. We will discuss with input from the audience potential guidelines for managing thyroid disease and indications for thyroid surgery in these varying settings.

WORK- SHOP

Zarrabi, Amir

INFECTIONS AND CANCER OVERVIEW

Amir Zarrabi*

Stellenbosch University, Tygerberg Hospital, South Africa

Prostate cancer

14h30–17h30

Saturday

23 November

2013

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Worldwide almost 20% of cancers are related to infectious diseases, and several urological malignancies have a strong association with infection. On a cellular level, infectious pathogens (viruses, bacteria, parasites) may cause malignant transformation not only through the activation of oncogenes or proto-oncogenes, but also through cytokines (IL-15) involved in the chronic inflammatory response caused by these pathogens. Urological malignancies caused by infections include squamous cell carcinoma of the bladder (*Schistosoma* parasite) and squamous cell or verrucous carcinoma of the penis (human papilloma virus). Patients infected with the human immunodeficiency virus (HIV) are prone to develop certain malignancies associated with a viral etiology, many of them also involving the urogenital system, e.g. Non-Hodgkin's lymphoma and Kaposi's sarcoma. The development of prostate cancer has been linked to infection and inflammation—recently, xenotropic murine leukemia-related virus has been identified as a candidate etiological agent.

WORK- SHOP

**Radiation and
chemotherapy**
14h30–17h30
Friday
22 November
2013

Zubizarreta, Eduardo

CURRENT STATUS AND FUTURE NEED FOR RADIOTHERAPY IN AFRICA

Eduardo Zubizarreta*¹; Debbie van der Merwe²; Elena Fidarova³;
Yaroslav Pynda⁴

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Medical Radiation Physics Section, South Africa; ³IAEA–Applied Radiation
Biology and Radiotherapy Section, Austria; ⁴IAEA–Division of Human Health,
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Africa's population was 771 million in 1998 and 1031 million in 2010. The total number of cancer cases, excluding non-melanoma skin cancer, was respectively 504 000 and 716 000. Assuming a radiotherapy utilisation rate of 52% the number of cases needing radiotherapy was 323 000 in 1998 and 458 000 in 2010 (including 24% re-treatments). Existing teletherapy machines were 155 in 1998, and 277 in 2010, and the respective coverage of the needs was 22%, and 27%. Taking into account the projected increase of population and cancer incidence, the estimated number of cancer cases would be 1 million in 2020 and 1.34 million in 2030, with 640 000 and 856 000 needing radiotherapy, and the number of teletherapy machines required, 1421 and 1901.

IAEA has a long history of helping countries in the establishment of their first radiotherapy facility or in the expansion of radiotherapy services through its Technical Cooperation Department, supported by the Division of Human Health. More recently, the shortage of radiotherapy equipment and staff in developing countries lead to the creation of the Programme of Action for Cancer Therapy (PACT) in order to better coordinate international efforts in the area of cancer control. The Advisory Group on increasing access to Radiotherapy Technology in low and middle income countries (AGaRT) acts as a neutral facilitator to bring together radiotherapy equipment suppliers and radiotherapy users from developing regions to find the best possible matching between the technology available and the requirements of LMI countries.

LUNCH SYMPOSIA

GSK Vaccines symposium

13h15–14h15

Friday

22 November

2013

Adewole, Isaac

BURDEN OF CERVICAL CANCER: THE AFRICA PERSPECTIVE

Isaac F Adewole*

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Cervical cancer is the second most common cancer in women, with 530,000 diagnoses and 275,000 deaths worldwide in 2008, mostly (88%) in developing countries, including Africa where the incidence is $\geq 26.8/100,000$. Almost all cases are associated with persistent infection with oncogenic human papillomavirus (HPV) subtypes. The risk of infection is highest among sexually active adolescent women aged 15–19 years, and cervical cancer incidence peaks between ages 33–55 years. Most (70%) infections resulting in cervical cancer are attributable to HPV 16 and 18. HPV 16, 52, 18, 31, and 35 are the most prevalent subtypes in Africa. A comprehensive approach prioritising prevention is required to reduce disease burden and mortality. The challenges posed by secondary prevention make it imperative for Africa to invest in primary prevention.

The introduction of HPV vaccines in the US markedly reduced infection rates among girls/women aged 14–19 years by 56%, despite low coverage. In Australia, HPV vaccination reduced high-grade cervical abnormality rates in girls ≤ 18 years. In Africa, several challenges for successfully implementing HPV vaccination must be overcome, including taking advantage of GAVI funding, improving the inadequate delivery infrastructure, and assessing the impact of HIV. We must learn from the success of Uganda and Rwanda, where high vaccine coverage has been achieved in vaccine demonstration programmes.

In summary, cervical cancer represents a major burden that could ultimately be reduced by vaccination to reduce HPV infection rates. However, several barriers must be overcome to ensure effective screening, treatment and prevention through vaccination and community education in Africa.

LUNCH SYMPOSIA

American Cancer Society

NCDS AFRICAN OUTCOMES: HITTING GLOBAL TARGETS, BUILDING NATIONAL CAPACITY FOR MAKING CANCER A GLOBAL PRIORITY

NCDS African outcomes

13h15–14h15

Thursday

21 November

2013

American Cancer Society*
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Cancer and other NCDs such as cardiovascular disease, diabetes, and lung disease kill more than 36 million people globally every year. Globally, the NCD burden will increase by 17% in the next ten years, and in the African region by 27%. History was made in 2011 when global leaders adopted the UN Political Declaration on Non-Communicable Diseases affirming that the global burden and threat of NCDs constitutes one of the major challenges for development in the twenty-first century. The UN High-Level Meeting served as a critical catalyst for initiating meaningful and effective global and national policy change to stop this enormous economic and social threat. While noteworthy progress has been made, including a first-ever global NCD monitoring framework comprised of voluntary global targets and indicators to reduce premature mortality from these diseases, civil society has a critical role to play in holding global leaders accountable for taking action and advocating for access to proven prevention, detection and treatment programs. The American Cancer Society collaborates with the NCD Alliance, the Union for International Cancer Control, the GAVI Alliance and other key global organizations and regional partners to prioritize cancer and other non-communicable diseases on the global health and development agenda.

This session will launch a special progress report of the Society's Meet the Targets grants program and discuss the potential of coalitions and partnerships in making cancer control and prevention a global priority. The American Cancer Society's 'Meet the Targets' program supports national advocacy efforts in key priority countries to ensure national implementation of the of the commitments made in the political declaration of the UN High level Meeting on non-communicable diseases; hold decision makers accountable to the 'Global NCD targets' to be established in 2012 and mobilize national networks in global advocacy with a view at influencing the next Millennium Development Goals (MDGs) to include NCDs.

LUNCH SYMPOSIA

Roche
symposium
13h15–14h15
Saturday
23 November
2013

Loubser, Merle

CERVICAL DISEASE AND THE HUMAN PAPILLOMA VIRUS

Loubser Merle¹; Greta Dreyer*²; Warner K. Huh*³

¹Roche; ²University of Pretoria; ³University of Alabama

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Despite there being advances in preventative methods and early detection, over 3 000 South African women die annually of cervical cancer; this number is even higher in Africa. Cervical cancer is the second leading cancer among women next to breast cancer but the leading killer of our women.

Women are primarily diagnosed when the disease is at an advanced stage and thus too late for curing the cervical cancer; mortality is known to be as high as 80%. If it is however caught early the prognosis and chance for a cure is very good.

Cervical cancer is predominantly caused by the highly contagious Human Papillomavirus ('HPV') an infection which affects women and is spread through skin to skin contact. 80% of women will be affected with a HPV virus some time in their lifetime. Most HPV infections clear up on their own but when the infection persists then the risk of contracting cervical cancer rises. About 100 types of HPV are known, however, only 14 can cause cervical cancer. Of the 14 the two types, namely HPV 16 and HPV 18, cause about 70% of cervical cancers.

The biggest trial done on women thus far in a truly blinded fashion is the ATHENA trial showing shortcomings of the Pap smear as well as cervical disease. One in four women with ASCUS cytology had CIN 2 or 3 and one in ten women with normal cytology had CIN 3.

Cervical cancer can be one of the most preventable cancers, however it continues to be a high killer due to women not being screened for the risk of contracting cervical cancer with newer molecular tests such as CobasHPV–DNA test. Early detection is the key in identifying abnormalities and treating them before becoming cancerous.

LUNCH SYMPOSIA

Ronfle, Vincent

VARIAN COMPREHENSIVE RADIOTHERAPY SOLUTIONS FOR THE AFRICAN CONTINENT

**Varian
symposium**

13h15–14h15

Friday

22 November

2013

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Varian, France

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Whilst radiotherapy has been, for decades, a common treatment modality in many countries, it still is far from being available in sufficient locations on the African continent. Availability of radiotherapy remains below the needs of the continent and in unequal distribution.

Varian Medical systems is working on helping the healthcare professionals on the continent to provide radiotherapy to their communities by adapting its solutions to the specific needs of Africa. We believe in adapted solutions for the equipment of course, but also take into account the peripheral resources required to establish a radiotherapy center such as the initial preparation, building, installation and support, but most importantly the EDUCATION, for which our Access to Care program aims to provide a level of knowledge to empower the staff in the radiotherapy practice to reach the required knowledge to get African radiotherapy up to 21st century standards.

LUNCH SYMPOSIA

GSK Vaccines symposium

13h15–14h15

Friday

22 November

2013

Seoud, Muhieddine A-F

HPV 16/18 AS04-ADJUVANTED VACCINE: ROBUST EVIDENCE IN CERVICAL CANCER PREVENTION

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Persistent infection with oncogenic human papillomavirus (HPV) can result in precancerous cervical intraepithelial neoplasia (CIN) or cancer. CIN grade 2+ (CIN2+) is a surrogate endpoint used in trials evaluating HPV vaccine efficacy in preventing invasive cervical cancer (ICC). However, CIN3+ is a better surrogate endpoint because it represents the immediate precursor stage before ICC, and CIN3+ lesions are less likely to regress than CIN2+ lesions.

The PATRICIA trial compared a bivalent AS04 HPV vaccine versus a control hepatitis A vaccine in women aged 15–25 years. In a TVC-naïve cohort, comprising women without HPV infection at baseline, AS04 vaccine efficacy in preventing CIN3+ lesions was 100% for HPV 16/18 lesions and 93.2% for lesions irrespective of HPV type at the end-of-study analysis. In another trial, AS04 vaccination provided high and sustained efficacy against HPV 16/18 incident infection and 100% efficacy against CIN2+ lesions. It also elicited sustained cross-protection against HPV 31/45 incident infection for up to 6.4 years.

The first real-world impact data from AS04 vaccination programmes have recently been presented. Vaccination reduced HPV 16/18 prevalence in England, while in Scotland the first evidence of cross-protective efficacy against non-vaccine types was demonstrated. The real-world impact of AS04 vaccination was also demonstrated in the Costa Rica Vaccine Trial. Vaccination significantly reduced high-grade lesions by 49%, and consequent colposcopy referrals and treatment by 21% compared to a control.

In summary, the AS04 vaccine has proven efficacy in preventing CIN3+ lesions ‘irrespective of type’ and clinically acceptable safety. The first results from impact studies are reassuring.

LUNCH SYMPOSIA

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2013

Stern, Peter L

IMMUNE PARAMETERS OF CERVICAL CANCER PREVENTION

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Persistent infection with oncogenic human papillomaviruses (HPV) is the major risk factor for developing cervical cancer. The most prevalent types, HPV 16 and 18, are found in ~70% of cervical cancers worldwide. Significant prevention of cervical cancer might be achieved by a vaccine able to induce high and sustained antibody titres against several oncogenic HPV subtypes. A vaccine composed of non-infectious HPV 16/18 recombinant L1 capsid protein virus-like particles (VLPs), mimicking natural virions, combined with Adjuvant System 04 (AS04) consisting of aluminium hydroxide and the immunostimulatory molecule 3-O-desacyl-4'-monophosphoryl lipid A has been developed. Higher HPV 16/18 antibody titres were elicited with AS04 versus another adjuvant. This bivalent vaccine induces HPV 16 and 18 neutralising antibody titres several-fold greater than those following natural infection and the titres are sustained for up to 9.4 years. The high antibody levels allow for transudation into cervical vaginal secretions (CVS) providing protective antibodies at the site of infection. The vaccine's enhanced immunogenicity generates cross-neutralising activity against related non-HPV vaccine types (HPV 31, HPV 45) for up to 7 years. These cross-neutralising antibodies are also detectable in CVS. When compared with the quadrivalent HPV vaccine (types 16, 18 plus 6, 11 associated with warts; adjuvanted with amorphous aluminium hydroxyphosphate sulphate), the bivalent vaccine elicited significantly higher serum neutralising HPV 16/18 antibody titres, and a 2.5-fold higher HPV-specific IgG ratio in genital/serum samples. Interestingly, the cross-neutralising activity correlates with published efficacy data against non-vaccine HPV types. Importantly, the bivalent vaccine is also immunogenic in HIV-seropositive individuals.



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