KENYA ASSOCIATION of PHYSICIANS

18TH ANNUAL SCIENTIFIC CONFERENCE

THEME: NON-COMMUNICABLE DISEASES: A CRISIS IN UNDER-DEVELOPED COUNTRIES

WELCOME ADDRESS BY KAP NATIONAL CHAIRMAN

Dear colleagues and participants to the 18th Annual Scientific Conference, it is with great pleasure that I welcome you to this important Conference.

The Theme for this Conference, Non-Communicable Diseases (NCDs): A Crisis in Under-Developed Countries; was chosen because of the urgency required to tackle the problem.

Chronic NCDs include Cerebro-Cardio-vascular diseases, Respiratory diseases, Cancer and Diabetes Mellitus amongst others. These diseases account for the vast majority of disability and mortality world-wide. Longevity in patients with HIV/AIDS has added burden to the list of NCDs; majorly as complications of either HIV infection or Anti Retroviral therapy.

Over 50% of the worlds NCD burden is in developing countries and is increasing at an alarming rate. The chronicity of NCDs exerts a heavy burden on the already overstretched health-care delivery systems in developing countries. Long hospital stay, long-term medications required, loss of man-hours at work places has significant adverse effect on the economy.

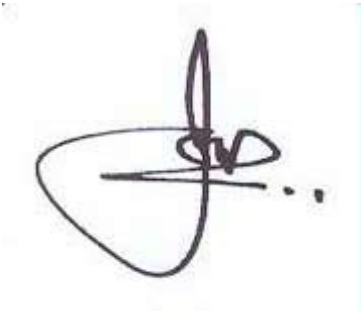
It is gratifying that there is already a Global response to address the issue of NCDs world over.

A high Level meeting on Prevention and Control of NCDs was convened by United Nations General Assembly in New York in 2011. This meeting requested World Health Organization (WHO) to play a leading role in coordinating Global Action against NCDs. Various Targets have been set. It is also gratifying to note that Kenya has NCD Alliance Chapter.

What remains for us is to have the Kenyan NCD Alliance Chapter work *aggressively* with every Kenyan medical personnel, at all levels; in all Counties to ascertain that the WHO goal of reducing mortality due to NCDs by 25% by 2015 becomes a reality.

As Physicians, we cannot shy away from this responsibility. It lies squarely at our door-step. We are the ones who manage patients with NCDs. Let us coordinate our efforts for a common good.

Thank You and



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Prof. M. S. Abdullah - Keynote Address

KAP HONOUR AWARDS:

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Dr. Joseph Amolo Aluoch

Dr. John Nyongesa Walumbe

Prof. William Lore

WEDNESDAY 26TH MARCH 2014: 14.00 HRS ARRIVALS AT MAANZONI LODGE REGISTRATION

TIME	TOPIC	PRESENTER
18.00-20.00	SYMPOSIUM BY SANOFI	
	DINNER COURTESY SANOFI	
	THURSDAY 27TH MARCH 2014 SESSION 1:	
	CHAIRPERSON: Dr ETAU/DR. OWINO.	
09.00-09.20	Systemic approach to poly arthritis	Ines Colmegna
09.20-09.40	Crystals in Synovial fluids in Nairobi	Brisson Muia
09.40-10.00	Approach to the patient with mono-arthritis	Ines Colmegna
10.00-10.20	Perceived benefits of self management training for musculoskeletal conditions"	Lillian Mwaniki
10.20-10.40	DISCUSSION	
10.40-11.00	TEA BREAK	
11.00-12.30	OPENING CEREMONY	
	MASTER of CEREMONY: Prof. C. F. Otieno	

TIME	TOPIC	PRESENTER
	CHIEF GUEST: Dr. J.A. Aluoch	
	Invited Guest: Felix O. Okatch	Counties and the Role of Professionals in the County's Economic Development
	Keynote Speaker: Prof. M. S. Abdullah	
	KAP HONOUR AWARDS Prof. Mohamed Said Abdullah Dr. Joseph Amolo Aluoch Dr. John Nyongesa Walumbe Prof. William Lore	
12.30-12.50	Role of Metformin in current management of Diabetes Mellitus.	S. Bhana
12.50-14.00	Lunch Break: Lunch Courtesy MERCK SERONO	
	CHAIRPERSON: Dr. C. Kamotho	
14.00-14.20	Pulmonary function in Patients with Rheumatoid arthritis	Irene Biomdo
14.20-14.40	Cardiovascular risk factors and carotid atherosclerosis in patients with Systemic Lupus Erythematosus	Betty Shiruli
14.40-15.00	Women's Health Issues in Lupus	Omondi Oyoo
15.00-15.20	Quality of life in Patients with systemic Lupus Erythematosus	Jackline Odhiambo
15.20-15.40	Emergencies in Rheumatology	Omondi Oyoo
15.40-16.00	DISCUSSION	

TIME	TOPIC	PRESENTER
16.00-16.30	TEA BREAK	
	CHAIRPERSON: Dr. Philip Simani	
TIME	TOPIC	PRESENTER
16.30-16.50	Epidemiologic patterns of osteoarthritis at Kenyatta National Hospital	Abdirahman Nour
16.50-17.10	Prevalence of Fibromyalgia in HIV positive patients-	Naomi Mumo
17.10-17.30	DISCUSSION	
17.30	TEA BREAK	
19.30-22.00	SYMPOSIUM BOEHRINGER INGELHEIM DINNER COURTESY BOEHRINGER INGELHEIM	Dr. Martin Wanyoike Treating Resistant Hypertension: Recent Update
	FRIDAY 28TH MARCH 2014	
	CHAIRPERSON: Dr. A. Twahir	
09.00-09.20	"A Journey to Freedom: CKD Management In Kenya"	Prof. M. S. Abdullah
09.20-09.40	Kidney Transplant Registry at AKUH	Jonathan Wala
09.40-10.00	Challenges of Hemodialysis in Resource Scarce Setting:	Joel L. Kiyiapi
10.00-10.20	Fluid overload in chronic kidney disease is a risk factor for its progression.	Ernest Kioko
10.20-10.40	DISCUSSION	

TIME	TOPIC	PRESENTER
10.40-11.00	TEA BREAK	
11.00-11.20	Case report Tenofovir associated Fanconi's syndrome	Jonathan Wala
11.20-11.40	Assessment of Kidney Function: Does it Matter?	George Moturi
11.40-12.20	Update on Management of Headaches	Juzar Hooker
12.20-12.40	Diagnosis of Lymphomas	Ahmed Yakub Kalebi
12.40-13.00	DISCUSSION	
13.00-14.00	LUNCH BREAK	
14.00-16.00	ANNUAL GENERAL MEETING (AGM)	
16.00-16.30	TEA BREAK	
16.30-1650	Stemming the tide of osteoporosis Emergencies	Omondi Oyoo
16.50-17.10	Selecting first line HAART	Enoch Omonge
	Discussion	
20.00-00.00	DINNER DANCE	
	SATURDAY 29TH MARCH 2014	
	CHAIRPERSON: Dr. Obure	
09.00-09.20	ABC of Bone Marrow Transplant	Riaz Kasmani

TIME	TOPIC	PRESENTER
09.20-09.40	A comparative study on quality and factors associated with glycemic control, among patients with T2DM, between a Tertiary Referral Hospital and a District Hospital in Kenya 2012	S.M.Mwavua
09.40-10.00	Prevalence of Hypertension and Associated Cardiovascular Risk Factors in an Urban Slum in Nairobi, Kenya. A population-based survey	Mark D Joshi
10.00-10.20	Oral Cancer Surgery- An experience	Raj Ravi
10.20-10.40	Prevalence of Poor Sleep Quality and High Risk for Obstructive Sleep Apnea in Ambulant Individuals with Type Two Diabetes Mellitus Attending Outpatient Clinics at the Kenyatta National Hospital	Saira Sokwala
10.40-11.00	Thromboembolic Disease - Updates on Management	Paresh A. Dave
11.00-11.20	Thromboembolic Disease - Laboratory Perspectives	Jamilla A Rajab
11.00-11.40	Sudden Death – KMA Coast Division Experience-A Dedication to Dr. Okanga	Gordon Peter Yossa
11.40-12.00	DISCUSSION	
12.00-12.30	CLOSING CEREMONY	

ABSTRACTS

AB-01

Epidemiologic patterns of osteoarthritis at Kenyatta National Hospital

Hussein A Nour[1, 2], Oyoo G Omondi [1,2], Mark D. Joshi[1, 2] Otsyeno Fred M[1, 2], Muriithi I M[1,]

Affiliation [1]University of Nairobi (UoN), [2]Kenyatta National Hospital

Background: Osteoarthritis (OA) is one of the most common chronic rheumatic disorders and is associated with significant morbidity and disability. Few studies examined the spectrum of rheumatic diseases in sub-Saharan Africa. Obesity is not only a risk factor for incidence of OA but also for the progression of the disease. The aim of the study was to determine the patterns of knee, hip and hand osteoarthritis as well as obesity prevalence in the patients with established disease.

Methods: in a cross-sectional descriptive study, we examined patients with knee, hip and hand osteoarthritis to describe the patterns of osteoarthritis in 201 who fulfilled the ACR diagnostic criteria. Their body mass indices were also studied to determine the prevalence of obesity in this cohort of patients

Results: A total of 201 patients with knee, hip or hand osteoarthritis were studied. Of these participants, 77% had knee OA, 15% hip OA, 3% hand OA and 5% had combined knee and hip OA. Obese participants were 41% and 32% were overweight. There were 89 (44.3%) participants with bilateral knee or hip disease while 112(55.7%) had unilateral disease. Obesity was more common in participants with knee than in hip OA (45.3% vs 10.3% respectively) $P < 0.001$. The bilateral disease was higher in obese (55.2%) and overweight (44.6%) participants compared to participants with normal body mass indices (26.5%) P value < 0.007

Conclusion: Knee OA was very common and the majority of the patients were overweight and obese. Bilateral OA was more prevalent in obese and overweight participants compared to normal weight participants. Obesity is an easily modifiable risk factor for knee OA so it can be made a valid target for preventing as well as halting the progression of OA

AB-02

Approach to the patient with mono-arthritis

Ines Colmegna

AB-03

DESCRIPTION OF TYPES OF CRYSTALS SEEN IN PATIENTS WITH SYNOVITIS AT KENYATTA NATIONAL HOSPITAL

Brisson Muia

Background: Crystal arthropathies represent a heterogenic group of skeletal diseases associated with the deposition of mineralized material within joints and peri articular soft tissues. Gout is the most common and pathogenetically best understood of crystal arthropathies, followed by basic calcium phosphate and calcium pyrophosphate di-hydrate deposition diseases, and, in very rare cases, calcium oxalate crystal arthropathy. In Kenya there have not been studies to demonstrate the prevalence of these diseases. This study endeavored to describe the different types of crystals seen in patients with synovitis at Kenyatta National Hospital

Objective: To describe different types of crystals seen in patients with synovitis at Kenyatta National Hospital

Design: Descriptive Cross sectional study

Results: There were 260 samples received from patients with synovitis. Of them, 61 (23.5%) were from males while 199 (76.5%) were from females. The age range of the patients was from 14 – 110 years. The mean, median and

mode were 59.6, 60 and 55 respectively. Majority of the patients were in the 51-60 years age category. Most of the patients recruited had no crystals (n=211; 81.2%) diagnosed from them but some had uric acid crystals (n=37; 14.2%) and CPPD (n=12; 4.6%). From the total population recruited (n=260), when gender was cross tabulated against microscopy, males (n=32; 12.3%) were noted to have more uric acid crystals than females (n=5; 1.9%). When it came to CPPD, more females (n=9; 3.5%) had them compared to males (n=3; 1.2%). From the total population recruited (n=260), when age range categories were cross tabulated against microscopy, the age ranges 51-60 (n=12; 4.6%), 41-50 (n=9; 3.5%) and 61-70 (n=6; 2.3%) were noted to have more uric acid crystals than any other age category recruited. When it came to CPPD, the age category 61-70 (n=6; 2.3%) had more detections than any other age category from the patients recruited.

Conclusion: Uric acid crystals were noted to be more prevalent in males than in females while CPPD crystals were more prevalent in females than in males. For both crystals were found to be more prevalent in the age bracket of 51-70 years.

AB-04

Systemic approach to poly arthritis

Ines Colmegna

AB-05

Pulmonary function in Patients with Rheumatoid arthritis

Biomdo Irene[1, 2], Omondi Oyoo[1, 2], Mecha Jared[1, 2], Chakaya Muhwa[3]

Affiliations[1]The University of Nairobi (UoN) [2] Kenyatta National Hospital (KNH) [3] KAPTLD

Background: Pulmonary involvement is a frequent and among the most severe extra-articular manifestations of Rheumatoid arthritis (RA) ranking as the second cause of mortality in this patient population. Rheumatoid arthritis can affect

the lung parenchyma, airways and pleura. Pulmonary complications are directly responsible for 10-20% of all mortality in RA patients. Spirometry is becoming increasingly available in Kenya and could be used in peripheral areas to screen and monitor for pulmonary function abnormalities in well characterized patient populations such as those with RA. Abnormalities detected by pulmonary function tests may precede symptoms by years and lead to early diagnosis of pulmonary fibrosis in rheumatoid arthritis and hence intervention.

Objective: To determine the prevalence of pulmonary function abnormalities in Rheumatoid arthritis patients attending Rheumatology Clinics in Nairobi.

Study Design: Cross sectional descriptive Study.

Study site*:* Nairobi Rheumatology Clinics in Kenyatta National Hospital, Aga Khan University hospital and Mater hospital.

Methods: Rheumatoid arthritis patients who fulfill the study inclusion criteria were recruited age 13years to 65years. Socio-demographic characteristics and respiratory symptoms were assessed using Lung Tissue Research Consortium questionnaire (LTRC) and RA disease activity was established by Disease Activity Score (DAS28). Pulmonary function tests were then done using Spiro lab 111 according to the American thoracic society recommendations.

Results: One hundred and sixty six RA patients were recruited; the male to female ratio was 1:9.3, with a median age of 47 years. The overall 6 month prevalence of pulmonary function abnormalities was 38.5% as measured by Spirometry and all our patients did not carry any prior pulmonary disease diagnosis. The predominant ventilator defect was Obstructive pattern at 20.4%, followed by Restrictive pattern at 16.8% and least common being a mixed picture at 1.2%. Factors that were shown to be independently associated with pulmonary function abnormalities were age and RA disease activity. Respiratory symptoms that were predictive of PFTs abnormalities were cough, increased frequency of chest colds and illnesses and phlegm.

Conclusion*:* High prevalence of pulmonary function abnormalities was observed. Respiratory symptoms, older age and ongoing disease activity can identify patients in greatest need of further pulmonary evaluation.

Key words: Rheumatoid Arthritis, Pulmonary function test, Nairobi rheumatology clinics

AB-06

Cardiovascular risk factors and carotid atherosclerosis in patients with Systemic Lupus Erythematosus

Shiruli BC[1,2], Oyoo GO[1,2], Ogola EN[1,2], Amayo EO[1,2], Aywak AA.[1,2] 1The University of Nairobi (UoN), [2]Kenyatta National Hospital (KNH)

Background: Cardiovascular disease is now acknowledged as a primary cause of morbidity and mortality in patients with systemic lupus Erythematosus (SLE). The risk of developing coronary artery disease in these patients is four to eight times higher than that in the normal population. Prior to this study there was no data regarding cardiovascular risk in SLE patients in our setting..

Objective: To determine the prevalence of selected cardiovascular risk factors and carotid atherosclerosis in patients with systemic lupus Erythematosus at Kenyatta National Hospital.

Methods: This was a cross-sectional survey carried out in patients with SLE and age- and sex-matched controls at the Kenyatta National Hospital. The SLE patients underwent clinical assessment with measurement of their blood pressure, weight, height, waist and hip circumferences. They also underwent laboratory testing to determine their fasting blood sugar and fasting lipid profile. In addition, carotid Doppler Ultrsonography was done for the lupus patients. The controls had similar clinical and laboratory assessment done as for controls. Carotid Ultrsonography was however not done for controls.

Results: Sixty six SLE patients and 66 healthy controls participated in this study. Mean age of the patients was 35.9 years, with a female to male ratio of 22:1 and median duration of illness of two years. Hypertension prevalence was 42.4% in the patients and 24.2% in the controls (p=0.027), dyslipidemia occurred in 74.2% of the patients and 62.1% of the controls (p=0.135) while diabetes prevalence was 4.5% in patients and 1.5% in controls (p=0.619). Obesity by BMI assessment was found in 12.1% of patients and 21.2% of the controls

(p=0.330) whereas abdominal obesity (by waist: hip ratio) occurred in 33.3% of patients and 24.2% of controls (p=0.249). Carotid atherosclerosis was observed in 19 patients (28.8%) and was associated with longer disease duration (p=0.040). Obesity as assessed by BMI also correlated with longer duration of illness (p=0.021).

Conclusion: There was a high prevalence of atherosclerosis and selected cardiovascular risk factors in this population of SLE patients. Hypertension was significantly more common in the lupus patients than controls. Cardiovascular risk assessment and appropriate treatment of risk factors identified should be enhanced in patients with SLE.

AB-07

Women's Health Issues in Lupus

Omondi Oyoo

Summary: SLE is a multisystem connective tissue disease that commonly affects women of reproductive age

Objectives: To review the common presentations of SLE and recognize the challenges in women with SLE

Outcome measures: To improve the quality of life and pregnancy outcome in women with lupus

Results: Women with Lupus have unique challenges that need to be understood and addresses

Conclusions: Women with Lupus can lead a normal life if well managed

Recommendations: there is need for a team approach in managing women with lupus. A protocol should be developed to address women's health issues in Lupus

AB-08

An Evaluation of Quality of life in Patients with systemic Lupus Erythematosus

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Background: Systemic Lupus Erythematosus is a chronic autoimmune disease that affects all organs of the body. It is becoming increasingly clear that SLE is not as rare in Kenya as was previously thought. Due to its chronicity SLE has been known to affect the quality of life of those affected by it. There is minimal data on SLE in East Africa and especially in Kenya. The quality of life of SLE patients in this country has never been assessed.

Objectives: The main objective is to document the quality of life of patients with SLE in Kenyatta National Hospital using LUPUS QOL questionnaire. We also sought to correlate HRQOL with duration of illness, drugs used and age of the patient.

Methods: This is a cross sectional study done on patients attending Rheumatology clinic in Kenyatta National Hospital. Patients who satisfy the ACR criteria were consecutively recruited. All patients with SLE attending the clinic were included in the study. Consent was obtained from the patients after whom their demographic data was obtained. Patients were examined for the presence of malar rash, discoid rash, arthritis/athralgia, photosensitivity, CNS symptoms, serositis and oral ulcers. The patients then filled the LUPUS QOL questionnaire. The information acquired was then analyzed using SPSS version 17.0 using student t test and regression analysis. The quality of life was calculated and then correlated with age, duration of illness and drug management.

Results: sixty two patients were analyzed (60 female 2 males). Mean age of the population was 37.3years (range 14-71 yrs). All patients had some level of education with 61.3% of the population having some form of secondary education.

Most patients 54.8% were married. Mean age of diagnosis was 34.5 years with mean duration of illness 1.5 years. Majority (88.7%) had arthritis/ athralgia, oral ulcers (62.9%), malar rash (59.7%), photosensitivity (58.1%), serositis (32.3%), CNS symptoms (27.4%) discoid rash (17.7%). Patients scored globally low in all domains of LUPUS QOL. Highest domain was Planning 63.7 (29.3), Emotional Health 61.3 (26.5), Burden to Others 58.9 (31.2), Fatigue 57.5 (30.0), Pain 56.6 (29.6), Physical Health 54.0 (23.3), Body Image 47.1 (24.2) Intimate Relations 41.1 (38.4).The most common drug in use in our population was prednisone at 74.2%. This was followed by HCQ at 69.4%, NSAIDS 54.8%, Azathioprine 37.1%, Methotrexate 22.6%, Mycophenolate mofetil 8.1%, CCB 11.3%, cyclosporine 3.2%. HRQOL correlated positively with advance in age for the domains Physical health, Burden to others, Emotional health and Fatigue. There was no correlation between HRQOL and duration of illness or drugs used by the population.

Conclusion: The HRQOL of our SLE patients was found to be low in all domains and to correlate with advance in age in the domains of Physical health, Burden to others, Emotional health and Fatigue. However there was no correlation with duration of illness or the drugs used by the patients.

AB-09a

Emergencies in Rheumatology/Stemming the tide of osteoporosis Emergencies

Omondi Oyoo

Summary: Rheumatologic conditions are generally thought to be benign.

Objectives: To review highlight the common rheumatology emergencies and outline current management practice

Outcome measures: To appreciate Rheumatology emergencies

Results: Rheumatologic conditions have a high morbidity and mortality and need quick response in handling emergencies that occur.

Conclusions: Rheumatologic emergencies need to be appreciated and be treated effectively to improve on outcome of patients.

AB-09 b

Osteoporosis: Silencing a silent disease

Omondi Oyoo

Summary: Osteoporosis is an underestimated disease that affects one in three women. Only one third receive medical attention

Objectives: To review current concepts in the diagnosis, management and prevention of osteoporosis

Outcome measures: to appreciate the lifetime risks and consequences of osteoporosis

Results: Osteoporosis has a high cost both socially and financially

Conclusions: Osteoporosis is a global problem affecting millions of people worldwide. Effective treatments needed to improve patients' lives and reduce escalating costs.

Recommendations: Need to develop protocol for prevention and treatment of osteoporosis in Kenya

AB-10 Perceived benefits of self management training for musculoskeletal conditions"

Lillian Mwaniki

AB-11

Prevalence of Fibromyalgia in HIV positive patients

Naomi M. Malombe[1,2], George O. Oyoo [1,2], Marybeth C. Maritim [1,2], Judith Kwasa [1,2]

Affiliations[1]The University of Nairobi (UoN) [2] Kenyatta National Hospital (KNH)

Background: Fibromyalgia is a rheumatic condition that is characterized by chronic widespread musculoskeletal pain with painful pressure points. There are other symptoms that are associated with this condition and they include fatigue, sleep disturbance and depression. The cause of this condition is unknown however chronic viral infections eg HIV have been associated with fibromyalgia. This study aimed to determine the prevalence of fibromyalgia in HIV positive patients.

Methods: This was a cross-sectional descriptive study that was carried out at the Kenyatta National Hospital, CCC**.** The patients attending the clinic between the months of February 2013 and April 2013 were assessed for chronic musculoskeletal pain and subsequently fibromyalgia using the American College of Rheumatology criteria**.** Those found to have fibromyalgia were given the FIQR and those without were given the SIQR for comparison purposes. Clinical details e.g. WHO clinical stage, CD4 counts and HAART regimen for those on HAART were also documented.

Results: A total of 380 patients with chronic musculoskeletal pain were enrolled in the study. The prevalence of fibromyalgia in these patients was 17.9% (n=68). Their mean age was 42.2years with a median of 42.5years.There was a female preponderance of 88.2% (n=60). Fibromyalgia was associated with female gender, OR=3.0, unemployment status, OR=5.4 and retired status, OR=3.4. A majority of the patients were in WHO clinical stage 3 and the mean CD4 count was 276.2cells/ml. There was however no association between fibromyalgia and WHO clinical stage, CD4 count and use of HAART or the specific HAART regimens. The mean FIQR was 50.1 which was significantly higher than the mean SIQR score of 12.4 in those without fibromyalgia.

Conclusion: Fibromyalgia is a prevalent rheumatologic condition among HIV positive patients with chronic musculoskeletal pain. It is also associated with a high FIQR score.

AB-12

Role of Metformin in current management of Diabetes Mellitus

Bhana

AB-13 "A Journey to Freedom: CKD Management in Kenya"

Prof. M. S. Abdullah

AB-14

Kidney Transplant Registry at AKUH

Jonathan Wala

Preliminary report of kidney transplant registry at Aga Khan University Hospital, Nairobi

Kidney transplantation is the treatment of choice for end-stage renal disease (chronic kidney disease stage 5). Despite the increasing number of kidney transplant surgeries being carried out in Kenya, ignorance about their occurrence and success is rife not only in patients but also within the medical fraternity. The presentation of the preliminary report of this registry serves to document scientifically the kidney transplant patients on follow-up at this hospital as well as to publicize our successes.

AB-15

Challenges of Hemodialysis in Resource Scarce Setting

Joel L. Kiyiapi

End stage Kidney Disease is currently on the rise in the 3rd world countries, Kenya included. This follows an exponential rise in non-communicable diseases such as hypertension, diabetes and obesity which in the past were a preserve of the developed world. Communicable diseases still remain high in the developing countries. Resultant kidney assault includes Post Infectious GN arising from post streptococcal skin or throat infections.

The enormous burden of complications of the above includes End Stage Kidney Disease (EKD) and other multisystem complications. Management of EKD includes Haemodiakysis, Peritoneal Dialysis and Renal Transplantation. In Kenya the services were available centrally (Nairobi) in the past. The volume of patients in the whole country is ever increasing and the need for Renal Replacement Therapy (RRT) development in other Centers is urgently needed.

AB-16

Fluid overload in chronic kidney disease is a risk factor for its progression.

Ernest Kioko

Chronic kidney disease (CKD) is an increasingly prevalent healthcare problem worldwide. Affected individuals have high rates of morbidity and mortality and often require costly treatments such as dialysis and kidney transplantation. Therefore, identification, prevention and control of risk factors for initiation and/or progression of CKD may improve preventive strategies that would eventually decrease its burden. Although Framingham (traditional) risk factors are more prevalent in patients with CKD than in the general population, they do not fully account for its accelerated progression and the associated cardiovascular disease (CVD) complications. Consequently, attention has been focused on non-traditional or novel risk factors such as fluid overload (FO). FO is a common

problem in these patients and is increasingly being recognized not only as a novel risk factor for CKD progression but also as an important contributor and an effect modifier in this patient population. This presentation will outline the pathophysiology of FO in CKD and discuss its impact on disease progression and patient outcomes.

AB-17

Case report Tenofovir associated Fanconi's syndrome

Jonathan Wala

Tenofovir-associated Fanconi's syndrome causing hypophosphataemia associated osteomalacia with multiple fractures

Tenofovir is a potent anti-retroviral drug and forms an important component of regimens for treating HIV infection due to its once-a-day dosing and minimal side effect profile. Due to its potential inhibitory effects on mitochondrial DNA polymerase, renal proximal tubulopathy manifesting as Fanconi's syndrome has often been reported. We report a case of Fanconi's syndrome occurring in a patient on Tenofovir-based antiretroviral therapy that resulted in severe hypophosphataemia, severe osteomalacia and multiple fractures that required bilateral hip replacement surgery.

AB-18

Assessment of Kidney Function: Does it Matter?

George Moturi

Nephrologist, Aga Khan University Hospital - Nairobi Kenya

Reduced renal function is often asymptomatic. Clinicians have to make a deliberate effort to assess kidney function. Many of the current tools available to assess kidney function are based on serum creatinine. Serum creatinine is an imprecise surrogate marker of kidney function. Nevertheless, reduced kidney function is associated with poor outcomes ranging from increased cardiovascu-

lar events to death. For hospitalized patients, reduced renal function increases risk of death and prolongs hospital stay for survivors. In the community, up to 10% of the population has chronic kidney disease (CKD), often manifesting as reduced kidney function. Identification of individuals with reduced renal function is important in optimizing their care which includes initiating strategies to prevent/retard CKD progression and/or associated cardiovascular deterioration. Overall, this reduces cost of caring for these individuals.

AB-19

Diagnosis of Lymphomas

Ahmed Yakub Kalebi

AB-20

ABC of Bone Marrow Transplant

Dr Riaz Kasmani (MBChB, MMed, Cert med Onc) Aga Khan Hospital, Mombasa

Introduction:

Bone marrow transplant is currently offered as a therapy in a number of cancers. Though not yet available in Kenya, it is available in many other countries and we do have patients from Kenya going abroad to seek this modality of treatment. It is therefore important for all physicians to have basic knowledge of bone marrow transplant as a mode of treatment, as we may need to refer our patients accordingly or to follow up those who have already undergone the procedure. This will be in form of power point presentation.

Aim: To relay information and update on the basics of bone marrow transplant in a simplified and comprehensive manner to all.

Outline of key points being discussed:

- Brief historical background on bone marrow transplant

- Introduction to hematopoietic stem cell transplant
- Types of transplant
- Sources of transplant
- HLA matching
- Indications of different types of transplants
- Preparation of a transplant patient
- Transplant process
- Complications and post transplant care

AB-21

A comparative study on quality and factors associated with glycemic control, among patients with T2DM, between a Tertiary Referral Hospital and a District Hospital in Kenya 2012

S.M.Mwavua

Background: Peripheral health facilities remain the most frequented by the majority of the population, yet remain sub-optimally equipped and not geared to non communicable diseases care, thus conceptions that diabetics can only get quality care from tertiary facilities.

Objective: Determine / contrast quality and factors associated with glycemic control in T2DM at the said facilities and relate to patient attitude and cost.

Design: Descriptive, cross sectional study, among T2DM, > 18 years, consenting, diagnosed and receiving care at the diabetic outpatient clinics at Kenyatta National referral hospital and Thika District Hospital. Every 3rd patient was screened and recruited into the study. HbA1C was measured on a finger prick

blood sample on site using a portable, easy-to-use device that provided results in five minutes.

Results: Out of 200 enrolled (120 KNH and 80 TDH) Females constituted (KNH 64.2%, TDH 70%) mean age 57.8 years and (58%) had primary education. Mean duration of diabetes (10 years) with (47.5%) diagnosed at medical camps compared to 45% who were symptomatic. Overall only 17% had good control (KNH 18.3%, TDH 15%); 46.7% in KNH were seen biannually compared to 3.8% in TDH. Furthermore 63.3% in KNH were on both insulin and OGAs compared to 4% in TDH. Cost of care in KNH was thrice the amount spent in TDH on transport, consultation and drugs.

Conclusion: Low /similar BS control in facilities, however, district facility less expensive, more clinic visits, does frequent urinalysis and weight, compared to the tertiary facility. Thus questions the notion, diabetes care is better at tertiary facilities.

Recommendation: Decentralize diabetes care to peripheral facilities with targeted referrals.

AB-22

Prevalence of Hypertension and Associated Cardiovascular Risk Factors in an Urban Slum in Nairobi, Kenya. A population-based survey

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Background: Urbanization has been described as the key driver of the evolving NCD epidemic in the developing world. In Africa several studies have documented hypertension as the commonest cardiovascular problem associated with major morbidity and mortality. We determined the prevalence and risk factor correlates of hypertension in the largest growing segment of urban Kenyan population.

Methods: In 2010 we conducted a population-based household survey utilizing cluster sampling with probability proportional to size. Households were selected using a random walk method and consenting adults recruited. The WHO STEPS-wise instrument was administered by trained medical assistants, who also recorded blood pressure (BP) and anthropometric measures, BP was recorded using a mercury sphygmomanometer utilizing the American Heart Association guidelines. An average of three intermittent readings was obtained. Hypertension was defined and classified as per the 7th Report of the Joint National Committee as being systolic BP ≥ 140 mmHg and/or diastolic BP ≥90 mmHg or use of prescribed antihypertensive medication. A random capillary blood sugar (RCBS) was obtained. Those with hypertension or with RCBS >11.1 had an 8 hours fasting venous blood sugar sample drawn. Diabetes was defined as a RCBS of ≥11.1 mmol/l and a FBS of ≥ 7.0 mmol/l; a prior diagnosis or receiving diabetes drug treatment.

Results: From 98% survey response; we enrolled 2061 adult Kibera slum residents; 50.9% were males; mean age was 33.4 years and 87% had a minimum of primary level education. Only 30.9% (631/2045) had ever had a BP measurement. The age standardized prevalence of hypertension (95%CI) was 22.8 % (20.7, 24.9) and only 20% (53/258) were aware of their hypertensive status; 59.3% had pre-hypertension and 6.2% had Stage I and 4.1% Stage II hypertension. Prevalence increased with age and was significantly higher among females in the age strata of 35-44 yrs (p 0.008) and 55-64yrs (p 0.001).Study participants were homogeneous with regards to high levels of physical activity and high levels of harmful alcohol intake. Ten percent were current smokers and 5% had diabetes. Majority of males had a normal BMI and waistline, whereas a third of females were obese or overweight and 40% had central obesity. Older

age, higher general and central obesity were independently associated with hypertension and higher SBP and DBP reading measurements.

Conclusions: Our findings of high prevalence of hypertension and pre hypertension in association with high alcohol intake and excess body weight in this poor urban slum community, with high levels of physical activity, point to the urgent need for targeted primary and secondary prevention strategies through lifestyle interventions. Also the need for increased and sustained awareness of hypertension among the public, health personnel and policy makers to contribute towards the detection, treatment and control of hypertension and associated risk factors.

AB-23

Oral Cancer Surgery- An experience

Raj Rav

AB-24

Prevalence of Poor Sleep Quality and High Risk for Obstructive Sleep Apnea in Ambulant Individuals with Type Two Diabetes Mellitus Attending Outpatient Clinics at the Kenyatta National Hospital

Saira Sokwala

Background: There is an inter-relationship between sleep disturbances, insulin resistance, obesity, type 2 diabetes and cardiovascular diseases. Prevalence of sleep disorders in Kenyans, and particularly in individuals with diabetes is unknown thus this study is a baseline for further studies in the field.

Objectives: We aimed to assess the quality of sleep (QOS) and prevalence of high risk for obstructive sleep apnea (OSA) among persons with type 2 diabetes and an age and sex matched healthy comparison group; and to determine associations with socio-demographic and anthropometric variables in patients with type 2 diabetes.

Methods: Utilizing a Cross-sectional design and random sampling, QOS and risk for OSA were determined in patients with type 2 diabetes attending clinics at Kenyatta National Hospital and an age and sex matched healthy non-diabetic comparison group, using the Pittsburgh Sleep Quality Index (PSQI) and Berlin Questionnaire (BQ) respectively. Associations between poor QOS, high risk for OSA and socio-demographic and anthropometric variables were explored.

Results: From 250 patients screened, 223 patients with type 2 diabetes were recruited; 53.8% females mean BMI was 28.8 (±4.4) kg/m^2 and mean age 56.8 (±12.2) years. Of these, 119 [53% CI 95% 46.5, 60.2] had poor QOS, and 99 [44% CI 95% 37.8, 50.9] were at high risk for OSA. Increasing age and higher BMI were independently associated with a high risk for OSA. Among the 112 age and sex matched comparison group, 33 [29.5%, CI 95%-20.9, 38.3] had poor QOS and 9 [8%, CI 95%-3.3, 13.4] had high risk for OSA.

Conclusions: Patients with type 2 diabetes have a high and undetected prevalence of sleep disturbances namely; poor QOS and high risk for OSA.

AB-25

Sudden Death – KMA Coast Division Experience-A Dedication to Dr. Okanga

Gordon Peter Yossa

Background: Sudden death – defined as unexpected rapid demise in apparently healthy individual has been observed with increasing frequency among our colleagues and close next of kin, a matter that has caused considerable concern in the community at funerals. Anxiety has reduced only after disclosing the postmortem findings.

Objective: Analyze common clinical and postmortem findings

Determine any preventive measures

Methods: Reports normally available to the social welfare team of KMA Coast division that visits the bereaved family

Participated in care of several of the cases and also attending postmortem

Speeches at funeral meetings – majority who are Christians are seen off at ACK Mombasa Memorial Cathedral.

Literature search was done on the morbidity/mortality among doctors. This is then discussed in the light of preventive measures

Results: Sixteen (16) cases found suitable – 14 doctors, 2 cardiologists, 4 close next of kin resident in Mombasa. Nine of them of African descent and seven of Asian/Arabia descent. Age range late teen to 70 years average.

Eight had sudden death with no resuscitation, 5 offered critical care, 2 cancer cases.

7 cardiovascular emergencies – 4 MI, 1 CVA, 2 pulmonary edema , 2 suicide, 1 sepsis syndrome, 1 RTA, 1 HIV/AIDS

Inconclusive factors – golf playing, social drinking/substance abuse, adverse family dynamics.

ACK Mombasa Memorial cathedral (in church) sudden collapse/death 6 - 2 deaths – 1 MI, 1 CVA. Other four ACS, stress reaction PUD & food poisoning

Discussion: Sudden deaths majority clustered in the last 5-10yrs. Death among 108 doctors in Kenya, (Personal Communication-Dr. Ochiel/Prof. Lore 2007), 50.9% deaths attributed to RTA, HIV/AIDs, cancer and MI 6.5%. Unexpected death reportedly associated with coronary disease with ventricular fibrillation in 75% cases. Genetic causes include long QT interval, Brugada syndrome known to account for 40-60 % of idiopathic ventricular fibrillation

The Seattle Washington community study (Alvaro) bystanders and pre-hospital emergency care, Implantable Cardioverter Defibrillation device – ICD interventions impacted positively on the prognosis.

HIV/AIDS and therapy raised cardiovascular risks but antiretroviral therapy confers more benefit that risk.

Conclusion: Sudden death raises huge emotions especially when that affects cardiologist/doctor and church congregants. Preventive aspects at all levels of care need to be emphasized. Research and appropriate interventions is what welfare committees ought to embark on.

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