

0006

**A SINGLE BASEPAIR MUTATION CAUSES
CYSTINOSIS IN THE MAJORITY OF WESTERN
CAPE PATIENTS.**

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Background: Cystinosis is caused by mutations in the CTNS gene. While many mutations have been diagnosed in other race groups, local mutations are unknown. The local phenotype has also not been described.

Method: In the last 5 years 17 patients with suspected cystinosis were referred for molecular analysis of the CTNS gene. A retrospective chart review was conducted on 14 of these patients where the clinical information was available. Molecular analysis was done in all 17 patients and six parents.

Results: Race : African Black (8) and Cape Coloured (9)]. Mean age at presentation:

2 years and 5 months (range: 5 months-5 years). All patients presented with a history of vomiting and polyuria and had developed Fanconi's syndrome. Six patients have developed Chronic Kidney disease (two end stage). 1 patient has hypothyroidism. 13 patients had corneal cysteine crystals. All patients had raised white cell cysteine at diagnosis. A molecular diagnosis of cystinosis was made in all 16/17 patients. 13 patients were positive for a homozygous G>A mutation in intron 11 (c.971-12G>A). Another was homozygous for S141F. Two were compound heterozygotes for c.971-12G>A and either c.16 del ctga or S141F.

Conclusion: Most patients in the Western Cape present with a severe infantile cystinosis phenotype. Most mixed race and black patients have G>A mutation in intron 11 (c.971-12G>A) It is not a mutation reported in Caucasian patients. This will aid in the diagnosis of patients with Cystinosis in South Africa as well as ante-natal testing for families

0007

**AUTOMATED PEDIATRIC PERITONEAL
DIALYSIS IN AFRICA: EXPERIENCE OF THE
UNIT OF PEDIATRIC NEPHROLOGY OF
THE TEACHING HOSPITAL OF YOPOUGON
(ABIDJAN IVORY COAST)**

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Automated Peritoneal Dialysis (APD) is a modality for

acute renal failure (ARF) in pediatrics, rarely practiced in black African hospital. APD began in January 2009. Before, children with ARF had no possibility of extrarenal purification apart from symptomatic treatment. We report the first results of the APD in this unit.

Methodology: From January to December 2009, we retrospectively studied 31 cases of ARF. The indication of the APD was made in 15 children among whom 10 were effectively dialysed.

Results.: The sex ratio was 0.42 (3/7) with an average age of 9.7 years (2-19 years). Glomerular diseases (60%), malaria (20%), acute respiratory infection, post-operative ARF and infectious comment ARF (2 cases / 10) were the principals etiologies. The time sold between the indication of ADP and the care of the patient was of maximum 12 pm in 70% of the children. The mean duration of hospitalization was 14.3 days (7-28 days). Complications were dominated by peritonitis (3/10), secondary migration of the catheter (1/10), the leak of the liquid of dialysis (3/10) and a defect of drainage (2/10).

2 children recovered renal function, 5 have evolved into chronic renal failure, there was 30% of deaths.

Conclusion.: The ADP could be a means to reduce the mortality of the ARF of the young child to Africa. But in view of our experience it should come along with a better training of the teams of pediatric surgeons in the installation of catheter and a bigger raising awareness to the measures of asepsis.

0008

**ACTIVITIES REPORT OF AN AFRICAN UNIT
OF PEDIATRIC NEPHROLOGY AFTER THREE
YEARS OF EXERCISE**

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Introduction: pediatric nephrology is the discipline that supports kidney of child. The care of these specific renal diseases motivated the creation of a unit in the pediatric department of the teaching hospital of yopougon since 2009. After three years of operation we present the result concerning consultations and hospitalization in the unit.

Methodology: It was a retrospective study from january 2009 to December 2011. All the children who were received in the consultation or in hospitalization were included.

Results: After the first year, we recorded 666 consultations among which 184 patients and 50 hospitalizations. During the second year, 740 consultations were recorded and 60 hospitalizations. Concerning the third year, 554 consultations and 42 hospitalisations. The main concerned age bracket was the children from 5 to 10 years old in the consultation and the sex-ratio was 1,53. The main diseases were nephrotic syndrome (33%), congenital urinary tract

(16.7%), acute glomerulonephritis (9,4%), chronic renal failure (10,3%), essential hypertension (0,36%), urinary tract infection (0,16%) and others diseases (27%). About hospitalization, the average age was 7,4 years and the sex-ratio was 1,1. Nephrotic syndrome was also the principal disease in hospitalization (31,5%), following by kidney failure (21,2%). 20,5 % among the hospitalized patients had a peritoneal dialysis.

Conclusion: The creation of the unit allowed a better care of the renal diseases of the child by the fact of early diagnoses and processings better adapted to the child such as of the peritoneal dialysis.

0015

AMYLOSE CHILDHOOD IN ALGERIA

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Introduction:

In pediatric AA amyloidosis is rare. In the early 20th century, AA amyloidosis secondary to infection and juvenile chronic arthritis were very frequent. In recent years, there has been a sharp decline of this disease because of therapeutic progress. Nowadays, the main causes of amyloidosis in children are autoinflammatory diseases particularly the FMF. Materials and methods: Retrospective study over a period of 15 years the clinical and histological diagnosis of amyloidosis carried within the pathology laboratories. We have collected data for each patient: age, sex, circumstances of discovery and etiology

Results: Epidemiology: 12 patients with amylose / 930 PBR of children from 1 January 1997 until July 2012, Frequency: 3.40% (12 amylose children / 344 total amylose) and 1.25% (12PBR amylose child / 930 PBR total child)

Discussion: The most common age is 16 years old. We have found out that sex did not influence the disease in children, sex ratio = 1. Circumstances of discovery is at a late stage to stage of nephrotic syndrome. Among the etiologies: 34% of chronic rheumatic diseases, 25 % digestive diseases chronic inflammatory, 25% of undetermined causes and one case of Takayasu. We have found out that inflammatory autoimmune diseases, also called monogenic hereditary recurrent fevers are possibly underestimated in our study in particular familial Mediterranean fever

Conclusion: Amyloidosis in children is a rare disease; the causes are variable over time. In this decade, autoinflammatory diseases are the most frequent pathologies in particular the FMF. In our study, no patients have been labeled with FMF or monogenic autoinflammatory disease, hence the importance of the genetic study.

0017

STARTING A NEW HAEMODIALYSIS UNIT AT A CENTRAL HOSPITAL IN MALAWI - ACTIVITIES AND OUTCOMES FROM THE FIRST YEAR OF SERVICE

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Introduction: Renal replacement therapy in sub Saharan Africa is scarce due the high costs involved. Consequently, there is very little published data in this area to inform clinical practice and service provision. We describe the operational activities and clinical outcomes of a new, three station, free at the point of access, haemodialysis unit in Malawi

Methods: All patients receiving dialysis from 19/10/11 to 19/10/12 were included. Patient demographics, clinical diagnosis, laboratory results and outcomes were collected prospectively. Cause of kidney injury was ascertained from clinical review and laboratory results (kidney biopsies are not performed locally).

Results: Eighteen patients received haemodialysis in year one. 15 (83.3%) were treated for end stage kidney disease (median age 40.1 years (range 15.0-68.0), 11 (73.3%) males, 5 (33.3%) HIV positive). The case fatality rate since the service began is 46.7%, 8 (53.3%) patients remain on maintenance haemodialysis. In 8/15 (53.3%) patients, the cause of kidney disease was unknown. Three patients were dialysed for acute kidney injury; two caused by volume depletion from cholera and 1 by post partum haemorrhage. Their median age was 46.5 years (range 40-55), 1 (33.3%) male. Of these 1 (33.3%) died, the remainder made a full clinical and renal recovery.

Conclusions: Haemodialysis services, while challenging, has been successfully implemented and sustained. The majority of patients with either end stage or acute kidney injury present with advanced kidney disease requiring emergency dialysis. Human and clinical resource investments are needed in Malawi to initiate services for early detection and management of kidney injury.

0019

CLINICAL PRESENTATION OF PAEDIATRIC KIDNEY DISEASE AT QUEEN ELIZABETH CENTRAL HOSPITAL (QECH), BLANTYRE, MALAWI

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Background: Studies from sub Saharan Africa have indicated that glomerular disease is a leading cause of kidney injury and contributes to the burden of end stage kidney disease. However; anecdotal evidence suggests paediatric kidney disease in Malawi is common. However, there is no literature from Malawi or the sub-region on kidney disease in children. We conducted a prospective study at a teaching hospital in Malawi to determine the clinical phenotype of paediatric kidney disease.

Method: Fully anonymised demographic, clinical and laboratory data were collected over 9 months for children presenting with kidney disease. Parameters were analysed by a nephrologist and paediatrician to determine the most likely underlying renal diagnosis. Renal histology is unavailable locally.

Results: Thirty eight patients were recruited, 19 male, mean age 7.9 years. One tested HIV positive, 17 were non-reactive and 19 were HIV unknown. The median creatinine at presentation was 1 mg/dL (range 0.1-33 mg/dL). Twenty (53%) patients presented with glomerular disease; 11 with nephritic syndrome, 9 with nephrotic syndrome (all steroid sensitive). Six (16%) patients were admitted with non-glomerular acute kidney injury; 4 died during admission. Four (10%) patients had urological disease with impaired kidney function; two (5%) had chronic kidney disease and six (16%) had uncertain diagnoses.

Conclusion: Glomerular diseases predominate in this study although the histological subtype is unclear. The mortality from acute kidney injury in children is high. Improving patient outcomes by developing diagnostic services including renal histopathology and early intervention for acute kidney injury are priorities for the paediatric renal service.

0021

AN AGE-SEX REGISTER OF NEW PATIENTS WITH ADVANCED KIDNEY FAILURE PRESENTING TO KOMFO ANOKYE TEACHING HOSPITAL [KATH], KUMASI: RESULTS AFTER 6 MONTHS' EXPERIENCE.

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Introduction: There are few data on the incidence and prevalence of kidney failure in Africa, and few Age-sex registers or Renal registries. In many countries such registries have become a vital component in planning renal services. Our study was undertaken in an attempt to ascertain the numbers of new patients presenting with serum creatinine $\geq 300 \mu\text{mol/L}$, and to assess the severity of renal dysfunction. Collection of such information more widely could assist public health planners, and ultimately improve the prospects for patients with kidney disease.

Method: Starting on May 1st 2012, data, including age, gender, serum creatinine and district of residence, were collected on new patients presenting to KATH with a serum creatinine of $\geq 300 \mu\text{mol/L}$. Patients were identified both in the Emergency department and in the Renal/Hypertension clinic.

Results: During this first 6 months 142 individuals [M 79, F 63] were identified. Their mean age was 47.2 ± 18.9 [males: 47.0 ± 19.2 , females: 47.3 ± 18.8]. 52.8% of patients lived in the Kumasi metropolitan area. Serum creatinine: range 301–5,091 $\mu\text{mol/L}$, mean $1246.0 \pm 847.2 \mu\text{mol/L}$; 72 of the 142 had a creatinine of $>1000 \mu\text{mol/L}$. The majority of patients [88.7%] had Stage 5 Chronic kidney disease.

Conclusion: Newly presenting advanced kidney failure is common at KATH, there being 25–30 such patients a month. Our data show too that the patients present very late in the course of their disease.

0022

BIOPSY-EVALUATED NEPHROTIC SYNDROME AMONG CHILDREN DIAGNOSED IN KANO: A CLINICO-PATHOLOGICAL STUDY.

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Objective: To evaluate clinico-pathological features of children with nephrotic syndrome seen in a developing paediatric nephrology unit in northern Nigeria.

Method: All children less than 15 years of age who presented with nephrotic syndrome and underwent renal biopsy at Aminu Kano Teaching Hospital (AKTH), Kano, between November 2011 and November 2012 were included in the study. Their microscopic diagnoses were evaluated alongside clinical and other laboratory parameters.

Results: Twenty nephrotic children were studied, 17 males and 3 females. Peak age was 7 - 8 years (range 2.5 - 13 years). These represent 55% of total paediatric nephrotics in the recently established unit, the rest of which have never had renal biopsies. The indications for renal biopsy were steroid-resistant nephrotic syndrome in 11 (55%) children, nephrotic syndrome pre- steroid treatment in 6 (30%) children and frequently-relapsing nephrotic syndrome in 3 (15%) children. Hypertension was found in 7 (35%) children. Sixteen children (80%) had microscopic haematuria on presentation. The most common histopathological diagnosis was focal glomerulosclerosis in 9 (45%) children (segmental = 8; global = 1). Minimal change disease was found in 4 children (20%), membranoproliferative glomerulonephritis in 3 children (15%), membranous nephropathy in 3 children (15%) and diffuse mesangial hypercellularity in 1 child (5%). Of the six children who had renal biopsy before treatment, 3 (50%) were found to have focal glomerulosclerosis.

Conclusion: Focal segmental glomerulosclerosis was the most common histological subtype diagnosed in Kano among children with nephrotic syndrome.

0023

EPIDEMIOLOGY AND CLINICOPATHOLOGIC OUTCOME OF CHILDHOOD AND ADOLESCENTS' CHRONICKIDNEY DISEASE

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Introduction: Due to dearth of data, understanding of chronic kidney disease (CKD) aetiology, manifestations and management has been poor and outcome dismal in African children.

Method: A retrospective analysis of hospital data of 154 CKD children and adolescents was conducted to determine the epidemiology and clinicopathologic outcome of paediatric CKD.

Results: Overall mean incidence was 11 (6-20) per million children population (pmcp)/year while prevalence averaged 48 (8-101) pmcp. There were 86 males (55.8%). Median age was 10.0 (0.2-15.5) years with 83.8% ≥ 5 years old. Aetiologies were glomerular disease (GMD, 90.26%), congenital and acquired urinary tract (7.79%) and hereditary

(1.95%) disorder. CKD stages at diagnosis were 45.5% CKD-1, 22.7% CKD-2, 10.4% CKD-3, 2.6% CKD-4 and 18.8% CKD-5. Median progression time through the CKD stages was 24.0 (3-108) months. Mean dialysis incidence and prevalence were 1 (0-4) pmcp/year and 4 (1-12) pmcp, respectively. Hypertension, heart failure (HF), malnutrition, anaemia, acute-on-CKD, and need for dialysis, azotaemia, hypercreatininaemia, and high calcium-phosphorous product (≥ 4.44 mmol²/L²) were mortality risk factors. CKD-1 survived significantly better than CKD stages 3-5 ($p < 0.05$) but not CKD-2 ($p = 0.098$). Hypertensive CKDs without HF survived better (73.0%) than hypertensive CKDs with HF (16.0%) [Hazard ratio (HR): 0.34, 95% CI: 0.14-0.83]. GMD survived better (68.5%) than non-GMD patients (33.0%) [HR: 2.87, 95% CI: 1.16-7.06].

Conclusion: CKD was commoner among school than pre-school age children. GMD was the predominant aetiology with better outcome than non-GMD. Comorbidity prevalence increased significantly with increasing severity of CKD stage.

0024

PREVALENCE OF RENAL DISEASE IN NIGERIAN CHILDREN INFECTED WITH THE HUMAN IMMUNODEFICIENCY VIRUS AND ON HIGHLY ACTIVE ANTI-RETROVIRAL THERAPY

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Abstract: Background: Access to highly active anti-retroviral therapy (HAART) has improved the prognosis of Nigerian children infected with the human immunodeficiency virus (HIV); thus, more children are surviving. Long-term exposure to HAART is potentially nephrotoxic. We therefore aimed at assessing the prevalence of renal disease in Nigerian children infected with HIV, who are on HAART. Patients and Methods. we studied children, aged ten months to 17 years, infected with HIV, attending the pediatric HIV clinics of the University of Benin Teaching Hospital. Demographic and clinical data were obtained by parental interview as well as from the medical records. Each child's urine was tested for albumin and microalbuminuria. The serum creatinine level of each child was also estimated and used in calculating the glomerular filtration rate (GFR). Renal disease was defined as the presence of significant proteinuria of 1+ and above on dipstick or the presence of microalbuminuria of ≥ 20 mg and/or GFR < 60 mL/min/1.73 m².

Results: The overall prevalence of renal disease was 16.2%. Microalbuminuria was seen in 11 children with renal disease (11.1%), GFR of less than 60 mL/min/1.73 m² was seen in five children (5.1%) with renal disease, but none had end-stage renal disease (GFR less than 15 mL/min/1.73 m²). Renal disease was found to be significantly associated with advanced stage of HIV infection ($P < 0.049$).

Conclusion: Prevalence of renal disease in HAART-treated Nigerian children is high and majority of them are asymptomatic of renal disease, but in the advanced stages of HIV infection.

0025

RENAL FAILURE IN HIV POSITIVE PATIENTS - A SOUTH AFRICAN EXPERIENCE

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Background: Renal disease is a major complication of HIV infection, with CKD occurring in 6-48.5% of HIV-infected patients in Africa. There is paucity of data regarding the prevalence and outcomes of AKI in HIV-infected patients in sub-Saharan Africa. We reviewed the outcomes of AKI in HIV-infected individuals compared with HIV-negative patients presenting in the same time period.

Method: A retrospective review of 101 HIV positive antiretroviral therapy-naïve patients presenting with renal failure over a 1 year was undertaken.

Results: A total of 684 patients presented with renal failure, 101 (14.8%) of whom were HIV positive. Ninety-nine (98%) of HIV positive patients were black and 56 (55%) were male, with mean age 38 ± 9.9 years (range 21 - 61). HIV positive patients demonstrated severe immunosuppression, with mean CD4 count of 135 cells/ μ L (range 1-579 cells/ μ L). Fifty-seven (56%) HIV positive patients presented with AKI, 21 (21%) with acute-on-chronic kidney disease and 23 (23%) with chronic kidney disease; seven patients with AKI were excluded due to lack of records. The causes of AKI in the HIV positive group included sepsis (62%), volume depletion and haemodynamic instability (20%), toxins (10%), urological obstruction (8%) and miscellaneous (10%). 44% of HIV positive and 47% of HIV negative patients with AKI demised ($p = 0.45$). Hyponatraemia ($p < 0.001$), acidosis ($p < 0.001$) and hyperphosphataemia ($p < 0.001$) were predictors of mortality in HIV positive patients with AKI.

Conclusion: HIV positive patients presented with AKI at a younger age and advanced stage of immunosuppression. Appropriate support, including dialysis, resulted in similar outcomes in both groups.

0026

OUTCOMES OF HIV CHRONIC KIDNEY DISEASE WITH HIGHLY ACTIVE ANTIRETROVIRAL TREATMENT

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With the growing use of HAART, CKD is becoming an increasingly important consideration. The main objective of this study included assessment of outcomes of HIV positive patients with CKD on HAART.

Method: A retrospective study was done on 169 patients (divided into two groups) with CKD. Group 1 ($n = 87$) had baseline pre-HAART initiation results available. Group 2 ($n = 82$) were on HAART prior to being referred to the HIV Renal Clinic.

Results:

Data	GROUP 1		GROUP 2	
	Pre-R x	2yrs post-R x	Baseline 2yrs	4yrs
Number	87	32	82	28
Mean age (years)	38		41	
Gender (F) %	48		42	
CD4	145	341	303	430
HIVAN	9	5	7	2
HIVICD	8	7	3	1
eGFR	20.8	57.3*	38.9	47.3
Proteinuria (g/day)	3	0.8*	3	2.1
Hypertension	35		34	
Diabetes mellitus	11		11	
Tuberculosis	28		25	
HIV-related malignancy	5		2	
ESRD	32	8	18	14

*p<0.05 (Kruskal-Wallis test) Group 1: Baseline eGFR increased from 20.8ml/min to 57.7ml/min (p<0.05) after 24 months. Baseline proteinuria decreased from 3g/day to 0.8g/day at 24 months (p<0.05). There were no significant changes in Group 2. HIVAN (N=16) and HIVICD(N=11) both improved with HAART. Factors associated with poor renal outcome were diabetes mellitus (OR 4.9, CI: 1.2 - 18.9, p=0.02) and lower starting eGFR (OR 1.01, CI: 1-1.03, p 0.01).

Conclusion: Initiating HAART before severe renal dysfunction has developed improves renal outcomes and reduces the burden of HIV-CKD in resource-limited settings.

0027

PROGRESSION OF CHRONIC KIDNEY DISEASE

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Aim: To assess progression of CKD in a cohort of patients attending a renal clinic.

Method: The progression of CKD was studied in 122 patients with CKD of diverse aetiology in a retrospective study (observation time 3 years).

Results: There were 122 participants. Males comprised (50.8%) of the participants. Blacks accounted for 55.7 % (n=68). The median age was 54.1±13.4. Diabetes mellitus and hypertension were the commonest causes of CKD. GFR decreased from 37.9 to 33.7 (p<0.001). MAP decreased from 131.4±21.1 to 121.4±14.5 mmHg (p<0.001). Eight percent of the participants had doubling of the serum creatinine. Seventy two percent were on RAAS blockers. Serum creatinine positively correlated with SBP (r=0.235; p=0.009), DBP (r=0.318; p<0.0001) and MAP (r=0.312; p<0.0001); and negatively correlated with bicarbonate (r=-0.543; p<0.0001), haemoglobin (r=-0.464; p<0.0001) and albumin (r=-0.386; p<0.0001). Sixty three percent achieved

target blood pressure control. On further subjecting the data to multiple regression analysis, SBP (p=0.04), bicarbonate (p=0.03) and haemoglobin (0.04) remained significant.

Conclusion: Few of the study participants had worsening of the renal function. BP improved at the end of follow-up. Systolic BP, acidosis and anaemia were independent risk factors for progression of CKD.

0028

CLINICOPATHOLOGICAL CORRELATION OF RENAL DISEASE IN HIV INFECTION

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Renal disease in HIV infection was 1st described by Rao et al in 1984 and for the first two decades of the HIV pandemic, HIVAN was synonymous with HIV renal disease. Since then the spectrum of HIV renal disease has widened. 216 HIV-infected patients underwent a renal biopsy, between January 2003 and November 2012, for standard indications at our institution. Retrospective review of indication to biopsy; demographic data (race, gender, age); clinical parameters (CD₄, HIV viral load, eGFR, cholesterol, albumin, proteinuria) and histopathological pattern was performed. 159 patients were included. A comparison between different histopathological patterns with respect to indication to biopsy and clinical data was conducted.

Of the 159 patients, 151 were of Black African ethnic origin, 81 were male and 78 were female. Mean age was 35.64±9.44 years. Leading biopsy diagnoses were HIVAN (21.9%), FSGS (16.9%) and HIVICK (14.4%). ANOVA of parameters by histology revealed eGFR to be statistically significant between groups. Histology was assessed by indication to biopsy. Nephrotic syndrome was the commonest biopsy indication. Comparing the HIVAN and HIVICK groups, eGFR was lower and proteinuria higher in the HIVAN group. Patients with non HIV-related renal disease on biopsy were older, had lower serum cholesterol and worse eGFR.

With the use of HAART survival of HIV-infected individuals has improved, resulting in the occurrence of HIV-related and non HIV-related kidney disease in infected persons. Due to overlapping clinical presentations and difficulty in predicting histological pattern, renal biopsy remains critical to patient care.

0030

A 2 YEAR RETROSPECTIVE REVIEW OF OUTCOMES OF ACUTE PERITONEAL DIALYSIS IN KING EDWARD HOSPITAL, DURBAN, SOUTH AFRICA.

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Background: Acute peritoneal dialysis (PD) is a renal replacement treatment modality that is still relevant today in many low resource centres due to its relative ease of

setup and operation in the treatment of patients presenting with acute kidney injury or a new diagnosis of chronic kidney disease requiring an urgent start to dialysis.

Materials & Method: A Single-center retrospective observational study on 34 patient files that were successfully sourced from hospital records from a list 99 patients identified to have been offered acute PD via a rigid catheter as the initial modality of dialysis at King Edward VIII Hospital PD unit. Short-term clinical outcomes (urea reduction rate (URR), fluid removal, metabolic control, and patient outcome) and complications (mechanical and infective) were evaluated.

Results: There was an average URR of 69% and PD ultrafiltration of 12548.5 mls accomplished over an average PD ward stay of 4.6 days and 62.5 PD cycles. Acceptable metabolic control was achieved when comparing pre PD values (averages for urea, potassium, bicarbonate, and phosphate of 54.14, 5.74, 11.03 and 3.18 mmol/l respectively) to post PD values (16.79, 3.07, 25.16 and 1.61 mmol/l respectively). Fifty percent of patients had catheter-related complications with 15% having infective complications while 35% had mechanical complications. There was a 32% mortality rate during PD ward stay.

Discussion: Outcomes of this study are in keeping with reports from literature, however, it is limited by fact it is a single-center retrospective noncomparative study with a small sample size.

0035

RISK FACTORS OF CHRONIC KIDNEY DISEASE IN GENERAL MEDICINE IN CONAKRY.

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The aim of our study was to detect chronic kidney disease. This was a prospective study conducted over the period from 1 November 2011 to 31 January 2012. It involved patients at risk of chronic kidney disease (CKD) hospitalized in the internal medicine at Donka National Hospital. The renal risk was defined by the presence of abnormal markers of kidney damage and/or a decrease in the glomerular filtration rate (GFR \leq 60ml/min). Patients with no abnormal markers of kidney damage and kidney failure of stage 4 were excluded. The frequency of chronic kidney disease in internal medicine was 33%. Of 185 hospitalized patients, 61 (33%) had CKD, among them 35 (57%) were male (p ns). The mean age of patients was 56 \pm 19 years [16 years-95 years]. The main risk factors faced were: HBP (52%), age > 60 years (41%), edema syndrome (26%), diabetes mellitus (18%), anemia (11%), smoking (8%) and heart disease (7%). The average serum creatinine was 144 \pm 80 μ mol/l [66-428], i.e a clearance (MDRD) of creatinine equal to 62 \pm 29 ml/min [16-127]. Proteinuria was \geq 5 g/l in 42% of cases, equal to 2 g/l in 27% of cases and < 1 g/l in 32%. The clinical type of renal damage was vascular nephropathy (43%), glomerular (26%), diabetic (10%) and interstitial (8%). Chronic renal failure

was stage 1 (21%), stage 2 (31%), stage 3 (33%) and stage 4 (15%). Chronic kidney disease is common and significant in internal medicine.

0038

RISK FACTORS OF CHRONIC KIDNEY DISEASE IN GENERAL MEDICINE IN CONAKRY.

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Background: Chronic non-communicable diseases (CNCDS) cause almost half of the disease burden in poorer countries. The African Partnership for Cohort research and Training is a collaboration. One of the aims of the South African pilot study was to determine the prevalence of CKD and its association with cardiovascular disease (CVD) risk factors among school teachers in South Africa. **Method:** A survey of 489 teachers in the Western Cape was conducted. Questionnaires captured demographic data and data on CNCDS and their risk factors. Physical measurements were taken, and biological samples were collected for serum creatinine, cholesterol, and urine protein/creatinine ratio (UPCR).

Results: The average age of participants was 46.4 \pm 8.5 years, with 70.3% being female and 70% of mixed ethnicity. Prevalence of CKD was 8.9%. Proteinuria was present in 5.3% while 3.8% had an eGFR < 60ml/min/1.73m². BMI was 31.8 \pm 7.6 kg/m² and waist circumference 95.9 \pm 14.1 cm. Systolic BP, diastolic BP and mean arterial pressure was 135.6 \pm 18.8 mmHg, 79.8 \pm 11.1 mmHg and 98.4 \pm 12.7 mmHg respectively. Mean serum cholesterol was 5.6 mmol/L, serum creatinine 74.2 μ mol/L, eGFR 89.2 mls/min/1.73m² and UPCR 0.10 mg/mg. CKD was associated with higher BMI, waist circumference, blood glucose, diabetes and metabolic syndrome. Multiple logistic regression analysis demonstrated increased risk of CKD with increasing blood glucose concentrations.

Conclusion: In our study population CKD is common and associated with cardiovascular risk factors. The long-term complications are serious and expensive to manage and this therefore constitutes an important public health problem in South Africa.

0043

TELMISARTAN USE LED TO REGRESSION OF PROTEINURIA AND IMPROVEMENT IN GLOMERULAR FILTRATION RATE (GFR) IN SICKLE CELL DISEASE PATIENTS WITH NEPHROPATHY.

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Background:

Kidney disease is a common cause of morbidity and mortality in Sickle Cell Disease patients with up to 5% of them developing end stage renal disease. Whereas as high as 38% of SCD patients have covert nephropathy which could be retarded by drugs. We set out to assess the usefulness or otherwise of Angiotensin Receptor Blocker (Telmisatan) Therapy in SCD patients with microalbuminuria, overt proteinuria and/or reduction in GFR.

Methodology: Forty SCD patients were given Telmisartan (40 - 80 mg) daily and biochemical parameters were assessed at 6 weeks and after 12 weeks. They were then repeated after 6 months of stopping Telmisartan therapy.

Results: Thirty nine (97.5%) completed the study with age range of 18-56 years with a median of 27 years. The mean arterial blood pressure was 79.5±, 97.5 and 98.0 mmHg at 0, 6 and 12 weeks respectively (p<0.0001). The median microalbuminuria level for 27 patients with microalbuminuria regressed from 15 to 10 and 5.0 mg/g at 0, 6 and 12 weeks respectively (p<0.0001) while the mean 24-hour urinary protein level for 12 patients with overt proteinuria was 1.03± 0.49, 0.57±0.16 and 0.45±0.10 g/day at 0, 6 and 12 weeks respectively (p<0.0001). The median glomerular filtration rate (GFR) for 38 patients progressively increased from 54.75 to 70.25 and 72.5 mls/ min/1.73m² Body Surface Area at 0, 6 and 12 weeks respectively (p<0.0001).

Conclusion: Telmisartan therapy led to a reduction in proteinuria and microalbuminuria and also improve glomerular filtration rate (GFR) in SCD patients.

0048

COMPLICATIONS ASSOCIATED WITH HAEMODIALYSIS OF CHILDREN DIALYZED AT AHMADU BELLO UNIVERSITY TEACHING HOSPITAL ZARIA

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Background: Haemodialysis is the commonest form of renal replacement therapy used in Nigerian adults but is much less often used in children. Not much is known about complications associated with paediatric haemodialysis in Nigeria. The aim of this study was to review complications associated with haemodialysis in paediatric patients at Ahmadu Bello University Teaching Hospital, (ABUTH) Zaria, Nigeria.

Method: Retrospective audit of dialysis records and case notes of children dialyzed at ABUTH.

Results: Seventeen children (3 to 15 years) had a total of 61 haemodialysis sessions (range 1-9 sessions per child) over a four year period. Indications for dialysis were severe Acute kidney Injury (AKI) 9(52.9%), Chronic kidney disease 3(17.6%), and acute on chronic renal failure in 5(29.4%) cases. Most patients presented to hospital late and were severely ill – 9(52.9%) had multiorgan dysfunction. Complications occurred in 6(35.3%) children during 38(62.3%) of the dialysis sessions and included problems with blood pressure (hypotension/hypertension) in 15(24.6%) sessions, seizures

in 11(18%) and difficulties with access and blood flow in 11(18%) sessions. Complications varied from mild and transient to severe. They led to discontinuation of 13(21.3%) dialysis sessions. One 1(2.7%) patient died. Complications which occurred in the other sessions were successfully managed but improvement in renal function was dependent on length of dialysis.

Conclusion: Complications occurred commonly during paediatric haemodialysis and affected the duration and efficiency of the procedure. Continued research is needed to prevent, anticipate, and manage these complications. Preventive measures must include encouraging patients to present earlier to hospitals.

0050

ANEMIA IN PATIENTS ON CHRONIC HEMODIALYSIS: PREVALENCE, CHARACTERISTICS AND MANAGEMENT IN A LOW RESOURCES SETTING.

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Aim: We investigated the prevalence, characteristics and management of anemia in patients on chronic hemodialysis and assess the response to blood transfusion based management in Cameroon.

Method: This was a cohort study of five months duration (August-December 2008) conducted at the Yaounde General Hospital hemodialysis center, involving 95 patients (67 men, 70.5%) on chronic hemodialysis by a native arterio- venous fistula. A monthly evaluation included full blood count, number of pints of packed cell and vital status.

Results: At baseline, 75 (79%) patients had anemia which was microcytic and hypochromic in 32 (43%) patients. Anemia was corrected in 67 (70.5%) patients using blood transfusion only while 28 (29.5%) patients were receiving erythropoietin (11 regularly, 39%). Only 77.2% of 342 pints (range 0-7 per patients, median 3.8) of packed cell prescribed were effectively received by patients during the follow-up at an unacceptably high cost to patients and families. Mean hemoglobin and mean corpuscular hemoglobin levels remained within the same range during follow-up, while mean globular volume increased. Being on erythropoietin was the main determinant of favorable trajectories of hematological markers. In all, 18 patients died during follow-up, with neither anemia, nor baseline hematological parameters being associated with mortality risk.

Conclusion: Patients on chronic hemodialysis in this setting have a high prevalence of predominantly microcytic hypochromic anemia, with limited capacity for correction using blood transfusion only. Strategies to reduce the burden of anemia should include improved access other means for correcting anemia in dialysis and the creation of a national blood bank.

0052

CHILDHOOD IDIOPATHIC STEROID RESISTANT NEPHROTIC SYNDROME IN PORT-HARCOURT, SOUTHERN NIGERIA

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Background: Childhood idiopathic steroid resistant nephrotic syndrome (iSRNS) is an important cause of end stage renal disease (ESRD). We undertook this study to determine the prevalence, clinicopathologic characteristics, treatment and outcome of children with iSRNS in Port Harcourt, Nigeria.

Materials & Method: A prospective study of patients with Idiopathic Nephrotic Syndrome (iNS) over a 6-year period (June 2006 to December 2012). Patients who were resistant to steroid therapy for at least 4 weeks were further analysed.

Results: Of the 89 patients with iNS, 77(86.5%) and 12 (13.5%) were steroid sensitive nephrotic syndrome (SSNS) and iSRNS respectively. Patients with iSRNS were aged 3 - 16 years, with a higher mean age of 10.3 ± 4.8 years compared to 7.4 ± 4.2 years among those with SSNS. There were more females with iSRNS (M:F = 1:2). Three (25.0%) patients had hypertension at presentation. Microscopic haematuria was commoner in patients with iSRNS (69.2%) compared to those with SSNS (30.8%) [$p = 0.000$]. Renal biopsy of ten patients revealed focal segmental glomerulosclerosis (FSGS) in 80.0%; membranous glomerulonephritis (10.0%) and membranoproliferative glomerulonephritis (10.0%). Alternative treatments given were cyclophosphamide (3 patients) and cyclosporine A (5 patients). Complete remission was achieved in only one patient after 6 months of regular treatment with cyclosporine A. Two (16.7%) patients developed ESRD and died.

Conclusion: The prevalence of iSRNS remains low in our environment with the commonest histologic lesion being FSGS. We had few alternative therapies and cyclosporine A was expensive and unaffordable resulting in poor outcome in these patients.

0053

LACK OF RELATIONSHIP BETWEEN CYP3A5 EXPRESSION AND BLOOD PRESSURE IN HEALTHY ADULTS IN ASHANTI, GHANA

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Introduction: CYP3A5 protein substantially increases 6 β -hydroxylase activity, which in turn stimulates the sodium-retaining actions of the mineralocorticoid receptor, potentially causing high blood pressure. Most Africans are functional CYP3A5 expressers so one would expect to find a relationship between CYP3A5 and blood pressure.

Our study investigates this possible explanation for the high incidence of hypertension in Africans, in a Ghanaian population.

Materials & Method: DNA samples were obtained from 957 of a cohort of 1,013 apparently healthy individuals, who in 2001/02 had been recruited to an epidemiological study of hypertension and salt intake. They were residents of 12 villages in the Ashanti region of Ghana. The extracted DNA was, in 898 individuals, of sufficient quality to allow genotyping at the CYP3A5*3 and CYP3A5*6 SNPs by real-time polymerase chain reaction. Blood pressure was measured using an OMRON HEM705CP sphygmomanometer. The participants had sat for at least 5 min before three pressures were obtained one minute apart; the first reading was discarded and the mean of the second and third calculated for analysis. Hypertension was defined as systolic BP ≥ 140 mmHg.

Results: 244 (27.2%) of the 898 individuals were hypertensive. Although there was a possible relationship between blood pressure and degree of CYP3A5 expression, there was no statistically significant relationship between either systolic or diastolic pressure and CYP3A5*3 or CYP3A5*6 genotypes and their haplotypes.

Conclusion: We conclude that there is either no association between CYP3A5 expression and blood pressure or, if there is a relationship, an association that is very weak.

0054

OUTCOMES OF CHRONIC DIALYSIS IN HIV-INFECTED PATIENTS

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South Africa carries the highest burden of HIV infection worldwide with about 5.6 million people living with the virus. There is a paucity of studies on outcomes of HIV-infected chronic dialysis patients in Africa.

To determine outcomes of chronic dialysis in HIV-infected patients and predictors of survival, records of HIV-infected patients on dialysis for 3 months or longer between January 2001 and September 2012 were reviewed for demographic and clinical data.

Results: 59 patients were included, 55.9% female, 93.2% black, 6.8% of mixed race. Mean age at dialysis initiation was 37.16 ± 8.19 years. Mean follow up was 30.45 months (3.1-132.2 months). Cause of ESRD was unknown in 57.6%, 18.6% had hypertension, 11% had diabetes. Biopsies were done in 7 patients, 4 had HIVAN, 1 had HIVICK. 62.7% were on peritoneal dialysis, 37.3% on hemodialysis. Median CD4 count was 230.5 cells/mm³ (3.0-499). HIV viral load was undetectable in 23 patients. 18 patients were on HAART at dialysis initiation. Most hospital admissions were due to peritonitis (30.5%) and fluid overload (27.1%). 30 patients died, 1 was transplanted. The commonest causes of death were fluid overload (37.95) and peritonitis (31.0%). There was no correlation between dialysis modality and outcome ($p=0.922$). Factors associated with mortality were low albumin ($p=0.039$) and low hemoglobin ($p=0.049$).

Conclusion: Peritonitis and fluid overload are important causes of morbidity and mortality in HIV-infected patients

on dialysis. CD4 counts and viral load at dialysis initiation did not impact on survival in our group. Dialysis modality did not impact on mortality.

0056

CHRONIC KIDNEY DISEASE IN GHANA

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Background: The prevalence of chronic kidney disease is increasing rapidly in Africa and other parts of the world. Previous data from Korle-Bu Teaching Hospital in Ghana, show that 15% of all medical admissions have kidney disease. In addition 10% of all deaths on the medical ward are due to chronic kidney disease. Most patients with chronic kidney disease in Ghana are aged between 20 and 50 years. There are few recent data on the causes for chronic Kidney Disease (CKD) from Africa. Previous studies reported that glomerulonephritis and hypertension were the major causes of CKD in Africa. We reviewed data on 100 new admissions with CKD in 2012. The information extracted from patients' records included; demographic factors, renal diagnosis, cause of renal failure, presenting serum creatinine, and sonographic measurements of kidney sizes.

Results: 82% of the patients with CKD were aged between 20 to 69 years with a slight male preponderance (male to female ratio of 1.1:1). The commonest cause of CKD was Hypertension (33%) followed by chronic glomerulonephritis (28%). Diabetes alone was a cause in 11% of patients. 12% of the patients had both hypertension and diabetes. Kidney sizes: Right- between 9 to 10.9cm for 62.5% of the patients and less than 8.0 cm in 25% of patients. Left- between 8 to 10.9cm in 67.3% of the patients and less than 8cm in 20.8% of patients.

Conclusion: Most of the patients with CKD were young and the commonest causes of CKD were hypertension and glomerulonephritis.

0060

PERITONEAL DIALYSIS IN ESRD TREATMENT, PILOT EXPERIENCE IN WEST AFRICA

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Introduction: Peritoneal Dialysis (PD) is rarely used in the western sub-Saharan Africa to treat patients with end-stage renal disease (ESRD). The present study is a retrospective review of the initial 6 years experience with PD in Senegal for ESRD therapy.

Materials & Method: Single centre retrospective cohort study of patients treated with PD between March 2004 to December 2010. Basic demographic data was collected on all patients. Peritonitis rates, causes of death and reasons for transfer to HD were determined in all patients.

Results: Sixty two patients were included in the study. The

median age was 47 ± 13 years with a male/female ratio of 1.21. Nephrosclerosis and diabetic nephropathy were the main causes of ESRD. Forty five peritonitis episodes were diagnosed in 36 patients (58%) for a peritonitis rate of 1 episode/20 patient months. Staphylococcus aureus and Pseudomonas aeruginosa were the most commonly identified organisms. Touch contamination has been implicated in 26 cases (57.7%). In 23 episodes (51%), bacteria cultures were negative. Catheter removal was necessary in 12 cases (26.6%) secondary to mechanical dysfunction, fungal or refractory infection. Sixteen patients died during the study.

Conclusion: Peritoneal dialysis is suitable therapy which may widely use for ESRD treatment in western sub-Saharan Africa. A good peritonitis rate can be achieved despite the difficult living conditions of patients. Challenges to the development of PD programs include training health care providers, developing an infrastructure to support the program, and developing a cost structure which permits expansion of PD program.

0064

CONTRIBUTION TO THE STUDY OF POSTPARTUM ACUTE RENAL FAILURE (CONNECTION OF 146 CASES COLLECTED IN DAKAR)

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Aim: The aim of this study was to determine epidemiological, clinical, biological, etiological and therapeutic profiles of ARF - pp, and to assess the materno- fetal prognosis.

Method: This is a retrospective study in the Department of Nephrology at Aristide Le Dantec Hospital in Dakar over a period of 10 years (2000-2009). Patients with pre-existed impaired renal function before pregnancy were not included. 146 patients with ARF – PP were surveyed. Prognosis factors were determined by comparing two groups of patients according to the favourable or unfavourable renal function development.

Results: The hospital prevalence was 4.65%. The average age was $31,01 \pm 6,63$ years. The perinatal mortality was 87.7%. The oligo-anuria was found in 82.2% of cases. The average blood creatinine and urea were 1.5 g/l and 96,08 mg/l, respectively. The acute tubular necrosis was found in 145 cases. This was always due to a childbirth bleeding result of a retro-placental Hematoma in 60,27% of cases. Hemolytic uremic syndrome was found in one case. The hemodialysis treatment was used in 57.5% of the cases. The recovery of renal function was complete in 45.9% of cases. Poor prognosis factors were: The time limit of taking care, the rural origin of the patient, the hemorrhagic or septic abortion, oliguria, serious renal impairment, the non-use of hemodialysis treatment.

Conclusion: The Africa and specially the Senegal should be implemented all our resources to combat the ARF-PP. The most efficient tool of prevention is still a rigorous follow-up of pregnancies.

0070

RENAL BIOPSY IN CHILDREN AGED 2-15 YEARS IN THE TEACHING HOSPITAL OF DAKAR

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Introduction: We report the results of a series of 31 biopsies kidneys for children, in teaching hospital Aristide Le Dantec between January 2010 and May 2011.

Materials & Method: This is a retrospective study a series of 31 renal biopsies with ultrasonography using Silverman needle between January 2010 and May 2011. The sheet contained clinical information. we are using optic microscopy for the lecture.

Results: Thirty one patients were collected. Mean age was 9.19 years with a sex ratio of 1.8.

The indications were dominated by nephrotic syndrome corticoreistant, corticosteroid or multiple relapses in 24 cases, followed modification of renal function (5 cases), one case of tubulointerstitial nephropathy and proteinuria in a lupus. We diagnosed in 14 cases of nephrotic syndrome , minimal glomerular change (58.30%), 7 cases of focal glomerular sclerosis (29.2%), 3 cases of MDS (12.5%), Other lesions were diffuse glomerulonephritis with crescent in 2 cases, 1 case of reduced nephron (3, 7%), 1 case of cortical necrosis, 1 case of acute tubular necrosis and 1 case of lupus glomerulonephritis.

Conclusion: the renal biopsy brings added value to the understanding and treatment of renal diseases in children.

0072

SALT UNDER THE SKIN

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Extra-Renal Sodium Handling

Sodium is the major cation in the extracellular fluid. The body contains about 200 gm. of sodium chloride.

Traditionally the kidneys are responsible for handling sodium and adjusting blood volume, In situations of excess, three mechanisms are brought into play:

- A feeling of thirst causing drinking, which dilutes sodium.
- Drinking causes volume increase leading to passing urine thus enhancing sodium excretion.
- The rest of the excess body sodium is tucked under the skin, which acts as a capacitor, till the extra salt is removed. It is this third extra renal mechanism which is the subject of discussion of this paper
Modern diet gives us overdose of sodium 15-18 grams rather than 5-6 grams that we need per day. The kidneys and skin are the traditional ways to get rid of extra sodium. But kidneys can only get rid of 5 gm/ day and the skin can get rid of upto 3 gm as sweat. The remaining 8-10 gm of sodium is stuck in

the body, stored under the skin.

The excess sodium under the skin is bound to proteins called proteoglycans and glycosaminoglycans. This makes the sodium osmotically inactive. This extra-renal mechanism of sodium handling was not known before and is a new concept being presented here.

The lymphatic vasculature forms a network that drains interstitial fluid from tissues and returns it to venous system. Excess sodium in the interstitium leads to interstitial hypertonic sodium, stimulates lymphatic growth through the activity of macrophages. This sponges away the sodium making it inert, and prevents excess fluid accumulation.

0073

OUTCOME OF TREATMENT OF CHILDHOOD STEROID RESISTANT NEPHROTIC SYNDROME WITH COMBINED PULSE CYCLOPHOSPHAMIDE, PREDNISOLONE AND ACE INHIBITOR - A PRELIMINARY REPORT

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Introduction: Steroid Resistant Nephrotic Syndrome (SRNS) usually associated with a poor outcome, is a common occurrence in South West Nigeria. Unfortunately, the prevalent high level of poverty in the country places the more effective drugs such as calcineurin inhibitors and Rituximab out of the reach of the common Nigerian child.

Methodology: Children with SRNS managed at the University College Hospital, Ibadan who underwent renal biopsy were treated with a combination of 6 doses of monthly intravenous Cyclophosphamide at 600mg/m² , oral prednisolone at 40mg/m² on alternate days and ACE inhibitor (Lisinopril or Enalapril at 0.2-0.6 mg/kg/day). The necessary clinical and laboratory parameters were monitored. They have been followed up for periods ranging from 2months to 3years. Their records were reviewed and analyzed.

Results: Eleven patients have so far completed the treatment schedule. Their ages ranged from 3.5 to 11years with a male to female ratio of 1.8:1 and 7 had FSGS. Four (36.4%) went into complete remission (CR), 5(45.4%) into partial remission (PR) and two (18.2%) patients did not respond. One of the non-responders and one of the partial responders lost to follow-up are dead.

Conclusion: This result suggests that in a developing economy like Nigeria, the above drug combination could serve as a first line treatment for SRNS in the absence of the ideal though more expensive combinations, and is therefore recommended. Efforts should however be geared towards making available other immunosuppressive agents that could keep patients in remission and prevent progression to End-stage Kidney disease.

0074

SEROCONVERSION TO HEPATITIS B AND C POSITIVITY AMONG PATIENTS ON MAINTENANCE HAEMODIALYSIS IN CAMEROON: A SINGLE CENTRE STUDY.

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Background: Maintenance haemodialysis constitutes a high risk environment for both Viral Hepatitis B (HBV) and hepatitis C (HCV) infections. While some patients enter the dialysis program with seropositivity for these viruses, most acquire the infection in the course of therapy. The aim of this study was therefore to determine seroconversion rates for HBV and HCV amongst haemodialysis patients in the renal unit of Douala and to identify potential risk factors

Materials & Method: This was a cross-sectional study conducted in the haemodialysis centre of the Douala General Hospital in September 2012. No dialyzer re-use and no isolation policy is practised in the unit. Patients on dialysis for at least 4 months were studied. Relevant patient data was noted. Third and fourth generation ELISA assays were used for HBsAg (BIOREX), and HCV antibodies (BIOREX) respectively.

Results: Ninety-seven patients were included in the study, (64 M, 33F) Mean age was 50.9 ± 13.9 years. The mean dialysis duration was 32.7 ± 27.5 months (range 5 -127). All patients had received blood transfusions on dialysis. The seroprevalences of HBV and HCV were 4, 1%, and 26, 8% respectively. Seroconversion rates were 1, 1% (1 patient) for HBV and 11, 80% (9 patients) for HCV. Only a longer dialysis duration was associated with HCV seroconversion ($p=0.003$).

Conclusion: The seroconversion rate for HCV is high in our center. HBV seroconversion is low despite the absence of isolation for positive patients. Strict adherence to universal precautions may reduce these rates.

0076

REVIEW OF OUTCOMES OF KIDNEY TRANSPLANTATION IN GHANA

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Background: Kidney transplantation is the treatment of choice for patients with end-stage kidney disease and it is cheaper in the long-term than haemodialysis. Kidney transplantation was started in Ghana in November. Twelve successful transplants have been done so far. All 12 patients were on dialysis before transplantation. The average duration of dialysis was 24months.

Aim: To review the outcomes of live donor kidney transplants performed in Ghana

Method: A retrospective review of 12 patients who underwent live donor Kidney transplant in Korle Teaching hospital in Ghana from November 2008 to April 2012.

Results: The age of the patients ranged between 24 and 57 years (Median age of 40years. The mean serum creatinine at 9months was 106umol/l. There was no delayed graft function. Postoperative bleeding was observed in one patient. There was no vascular, thrombotic or urological complication seen. One patient had severe wound infection leading to gaping of his wound and secondary suturing. 6 (50%) of the patients developed New Onset Diabetes after Transplantation (NODAT). One patient developed graft failure after one year on account of non-compliance. There was no mortality at one year but 2 patients died subsequently. One died from severe gastrointestinal ulceration with a functioning graft and the other from cardiac arrest after 2 years on haemodialysis.

Conclusion: Although the numbers are too small to make any definite conclusions, the outcome of the transplants done so far is good.

0078

PREVALENCE AND EPIDEMIOLOGY OF END STAGE RENAL FAILURE IN CHILDREN

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Introduction: End-Stage-Renal-Failure (ESRF) defines the stage of chronic kidney disease at which Renal Replacement Therapy (RRT) becomes necessary. At ESRF, death becomes imminent from severe uraemic complications and pulmonary oedema. In Ghana like most African countries, chronic RRT for children is non-existent. This may be due partly to under estimation of the magnitude of the problem.

This study was undertaken to determine the prevalence of ESRF among children admitted with kidney disease and to establish the epidemiological distribution.

Method: Retrospective data review of children with kidney diseases admitted to the nephrology unit of KATH over 3-year period.

Results: Fifty-four (9%) of 600 children admitted with kidney diseases had ESRF, 28 males and 26 females.

Thirty-one (57.4%) were aged 10 years or more, 19 (35.2%) between 5 and 10 years. One (1.8%) was < 1 year.

Aetiology could not be established in 53.7% of cases. Chronic glomerulonephritis accounted for 33.3%, CAKUT 5%, urinary schistosomiasis 3.7%. Unresolved AKI and HIVAN accounted for 1% each.

Discussion: Chronic glomerulonephritis continues to be a major cause of ESRF among children in Africa. Most of the children had no prior history of overt renal disease and were presenting for the first time. It presupposes a significant proportion of subclinical disease which could have been detected by simple urine test.

Conclusion: There is significant burden of ESRF in children in Ghana. This calls for the establishment of

chronic RRT for children. Periodic urinalysis should be enforced in schools.

0002

L'ESTIMATION DES RISQUES DE COMPLICATIONS CARDIO-VASCULAIRES PAR LE CALCUL DU DFG PAR LA MÉTHODE DE CKD EPI

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Introduction: Le calcul du DFG à l'aide du CKD-EPI estime le risque des complications cardio-vasculaires chez les malades avec maladies rénales chroniques que l'équation du MDRD.

Matériels et méthodes: L'étude cohorte de 226 patients sur la comparaison du risque des complications des maladies cardio-vasculaires par le calcul du DFG selon 2 méthodes : MDRD et CKD EPI

Résultats: Sur les 226 patients : 45% étaient diabétiques, 17% avec des maladies cardio- vasculaires, 20% avec des maladies rénales chroniques au stade 3 et 5

Sur une durée de 3ans, nous avons obtenu: 46 patients qui avaient développé une maladie cardio-vasculaire dont 20 patients avec des maladies coronariennes, 10 cas d'accidents vasculaires cérébraux et 16 cas d'insuffisances cardiaques. La méthode de CKD EPI a permis de reclasser les patients : les patients avec des DFG ≥ 90 ml/mn avaient moins de risque de développer des maladies cardio-vasculaires

Conclusion L'utilisation de l'équation CKD EPI pour le calcul du DFG est meilleure que la méthode de MDRD pour prédire le risque des complications cardio- vasculaires.

0003

LES DIFFÉRENTES TRAJECTOIRES DE LA DE DÉGRADATION DE LA FONCTION RÉNALE CHEZ LES PATIENTS ATTEINTS DE MALADIES RÉNALES CHRONIQUES

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Introduction:

L'évaluation du trajet de la progression de la fonction rénale du stade de l'IRC au stade terminal est délicate. Celle-ci passe par une collaboration précoce du médecin généraliste et du néphrologue dont l'histoire de l'IRC est variable suivant les patients. Certains évoluent lentement alors que d'autre rapidement. Objectif :Evaluer le trajet de la progression du DFG de la MRC 3ans avant le début de la dialyse .Patients et Méthodes :Etude cohorte portée sur 102 patients atteints de MRC .Résultats :Nous avons identifié 4 trajectoires différentes du DFG :59,5% des patients présentaient une dégradation faible de la fonction rénale avec une perte de DFG < 30 ml/ mn/1 .73 et une pente moyenne de $8,2 \pm 3$ ml/mn. 27.2% présentaient une perte progressive du DFG 30-59 ml/mn/1,73 ml/mn et une pente moyenne de 20 ± 2 ml/mn/1,73. 11,2% avaient une perte rapide de la fonction rénale > 60 ml/mn/1,73 (pente moyenne de 35 ± 10 ml/mn/1,73. 2 ,1% ont subit

une perte accélérée du DFG > 70 ml/mn/1,73ml/mn .Les patients qui avaient subit une dégradation accélérée de la fonction rénale étaient plus susceptibles d'avoir été hospitalisés et ou une lésion rénale aigue surajoutée à été diagnostiquée. La plupart des patients n'ayant pas reçu des soins en pré dialyse avait un risque plus élevé de décès dans la première année après le début de dialyse. Conclusion :il existe une grande hétérogénéité dans les pertes du débit de filtration glomérulaire au cours de la période de 3ans menant à l'initiation de la dialyse . Ces résultats suggèrent une approche plus souple à l'égard de la planification de l'IRT.

0005

LE SOMMEIL POURRAIT IL ÊTRE CONSIDÉRÉ COMME UN FACTEUR DE RISQUE DE MALADIES RÉNALES CHRONIQUES ?

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Introduction: De nombreuses études ont montré que la durée du sommeil est considérée comme un facteur de risque prédictif de maladies cardio vasculaires, mais il n'a pas été rapporté une association entre la durée du sommeil et les maladies rénales chroniques.

Matériels et méthodes: Etude cohorte sur 142 patients atteints de maladies rénales chroniques stades 3,4 et 5, âgés entre 20 et 70 ans

Résultats: Durée de sommeil de base est de 6 h 66 % des patients avaient une durée de sommeil < 5 h , protéinurie de 24h ≥ 2 g /24 H avec MRC stades 4 et 5 en dehors des néphropathies glomérulaires 27 % des patients avaient une durée de sommeil entre 5 et 6h , protéinurie de 24h entre 1 et 2 g /24h , avec MRC stade 4 7 % des patients avaient une durée de sommeil ≥ 7 h, protéinurie de 24h < 1 g /24 h, MRC stade 3

Discussion: Nous avons constaté que plus la durée du sommeil est moindre plus la protéinurie s'aggrave, et la fonction rénale s'altère

Conclusion: La baisse de la durée du sommeil pourrait être considérée comme un facteur aggravant la protéinurie et un facteur de risque de maladies rénales chroniques

0009

LE SOMMEIL POURRAIT IL ÊTRE CONSIDÉRÉ COMME UN FACTEUR DE RISQUE DE MALADIES RÉNALES CHRONIQUES ?

The ergamisol in the nephrotic syndrome of the African child: what contribution??? Adonis-Koffy Laurence, Diarrassouba Gnenefohy, Niamien Ekou, Gorgui Jean- Marc unit of pediatric nephrology of teaching hospital of Yopougon, Yopougon/ Abidjan, Cote D'Ivoire

Introduction: Nephrotic syndrome represents 0.26% of pediatric hospitalizations in CHU Yopougon. It is steroid-sensitive in 88% of cases, there is 70% of relapses during the decrease or discontinuation of corticosteroid therapy. We describe our experience in the treatment of ergamisol for sensitive nephrotic syndrome.

Methodology: This is a retrospective study to February 2001 at August 2009. 15 children with steroid-sensitive or steroid- dependent nephrotic syndrome who received Ergamisol were collected.

Results: Nephrotic syndrome was pure in 53, 3% and 46.67% impure. The average age of patients was 10.12 years at the time of using ergamisol. The average age of disease progression was 5.4 years. The Indications of ergamisol was the frequent relapses (80%), non-observance with corticosteroid therapy (7%), partial cortico-sensitivity (7%), a leuconutropenia during cyclophosphamide treatment (7%). Remission was significantly associated with a lower threshold of corticosteroid (86.67%). the ergamisol stopping was justified in only 1 case by the occurrence of leucopenia

Conclusion: The ergamisol should be popularized in Africa, ensuring the availability of the drug. The possibility of neutropenia requires a monthly biological monitoring.

0010

ASSESSMENT OF QUALITY OF LIFE OF PATIENTS WITH END STAGE KIDNEY DISEASE RECEIVING CHRONIC HAEMODIALYSIS IN MALAWI

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Introduction: Quality of life (QOL) of patients on haemodialysis is often overlooked in developed and developing countries. Traditional dialysis outcomes including haemoglobin, phosphorus and calcium may not be available in developing nations. This study assessed QOL of patients receiving chronic haemodialysis in Malawi.

Methods: This was a cross-sectional study and participants were recruited based on a convenience sampling approach. Patients were included if they had been on dialysis for more than three months in order to ensure their responses were an accurate reflection of the QOL on haemodialysis. We used the kidney disease quality of life short form 36 (KDQOL-SF36) questionnaire to collect QOL data.

Results: Twenty-two out of 25 eligible haemodialysis patients were recruited from three dialysis centres in Malawi: 59.1% were males and their median age was 44 years. The 2 most common causes of end stage kidney disease were diabetes and hypertension (45.5% in total). The median duration on dialysis was 20.6 months. From a possible score of 100, representing optimal QOL, the mean scores for the three main domains of the KDQOL- SF36 were 50.4 (SD 22.8) for the physical composite summary, 61.3 (23.0) for the mental composite summary and 67.9 (13.2) for the kidney disease composite summary.

Conclusion: QOL is poor in haemodialysis patients in Malawi and physical health issues predominate. Possible explanations include the relatively young age of our cohort and short time on haemodialysis. Interventions to improve QOL for haemodialysis patients in Malawi need to be multi-faceted with an emphasis on alleviating physical symptoms.

0011

SLEEP MAY BE CONSIDERED AS A RISK FACTOR FOR CHRONIC KIDNEY DISEASE?

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Introduction: Many studies have demonstrated that the duration of sleep is considered a risk factor predictive of cardiovascular disease, but it was not reported an association between the duration of sleep and chronic kidney disease.

Matériels et méthodes: Study cohort of 142 patients with chronic kidney disease stages 3,4 and 5, aged between 20 and 70 years

Results: Sleep duration base is 6 hours 66% of patients had a sleep duration <5h, 24h proteinuria ≥ 2 g / 24 H with stages 4 and 5 chronic kidney disease outside of kidney glomerular 27% of patients had a duration of sleep between 5 and 6 h, 24 H proteinuria between 1 and 2 g / 24 with stage 4 chronic kidney disease %seven patients had sleep duration ≥ 7 h, 24 h proteinuria <1 g / 24 h, with Stage 3 chronic kidney disease

Discussion: We found that the longer the duration of sleep is less proteinuria worsens, and kidney function deteriorates

Conclusion: The decline in sleep duration could be considered as an aggravating factor and proteinuria a risk factor chronic kidney disease

0012

DIFFERENT TRAJECTORIES DEGRADATION OF RENAL FUNCTION IN PATIENTS WITH CHRONIC KIDNEY DISEASE

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Introduction: The evaluation of the path of progression of renal function stage of CKD to end stage is difficult. Even if it is not possible, effective planning of dialysis and transplantation should be sought. Some evolve slowly while another quickly.Objective: To evaluate the path of progress of GFR of CKD over a period of 3 years before the start of dialysis : estimate the frequency of different trajectories of kidney functionPatients and Methods: Cohort study worn on 102 patients with chronic kidney disease

Results: We identified :59.5% of patients had a very low degradation of kidney function with loss of GFR <30ml/mn/1 .73 and an average slope of 8.2 ± 3 ml/mn; 27.2% showed a progressive loss of GFR 30-59 ml/mn/1, 73 ml / min and an average slope of 20 ± 2 ml/mn/1, 73; 11.2% had an accelerated loss of kidney function> 60 ml/mn/1, 73 (average slope of 35 ± 10 ml/mn/1, 73 ; 2, 1% have undergone a catastrophic loss of GFR> 70 ml/mn/1, 73ml/mn Patients who had suffered a catastrophic deterioration of kidney function were hospitalized or had acute kidney injury superadded to diagnosed .Most patients who did not receive pre dialysis treatment had a higher risk of death in the first year after the start of dialysis.Conclusion:We observed a large heterogeneity in the loss of GFR during the period of 3 years leading to the initiation of long-term dialysis. These results suggest a more flexible approach with regard to planning the management of chronic renal failure.

0013

THE ESTIMATED RISK OF CARDIOVASCULAR COMPLICATIONS IN THE CALCULATION OF GFR BY CKD EPI METHOD

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Introduction: The calculation of GFR using the CKD-EPI estimates the risk of cardiovascular complications in patients with chronic kidney disease than MDRD equation
Materials And Methods: The study cohort of 226 patients comparing the risk of complications of cardiovascular disease by calculating the GFR using 2 methods: MDRD and CKD EPI

Results: Of the 226 patients 45% had diabetes, 17% with cardiovascular disease, 20% with chronic kidney diseases stage 3 and 5

Over A Period Of 3 Years, We Got: 46 patients who developed cardiovascular disease, including 20 patients with coronary heart disease, 10 cases of cerebrovascular accidents and 16 cases of heart failure. The method of CKD EPI has reclassify patients: patients with GFR \geq 90 ml / min were less likely to develop cardiovascular disease conclusion Using the CKD EPI equation to calculate GFR is better than the MDRD method to predict the risk of cardiovascular complications.

0014

DEFICIENCY OF VITAMIN D AMONG THE TUAREGS WITH CHRONIC KIDNEY DISEASE STAGES 3AND 4 AND EFFICACY OF CALCITRIOL

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Introduction: The Vitamin D is essential for the regulation of the synthesis of parathyroid hormone (PTH). It is recommended measure serum 25 (OH) D and supplementing any deficiencies identified matériels and méthodes:Cohort study of 54 patients of Algerian origin (29 Targuis, 25 non Targuis) with CKD stages 3and 4.

Results:median Values: GFR 28- 27 ml / min (25-52 ml / min),25 (OH) D: 15 (10-30) ng / ml, mean concentration of PTH initial: 199 (150-250) pg / ml,PTH relative change 34pg/ml for patients on calcitriol and 20pg/ml for patients started on alfacalcidol .Relationship between PTH and VITD: There is a relationship between Vitamin D and PTH, the higher the concentration of Vit D is low more PTH is inversely proportional.Threshold slope failure of the PTH value of 18 ng / ml for Targuis and 10ng/ml for non Targuis same région.The base dose of Vit D is smaller patients Targuis compared to other patients not Targuis. The response of patients treated with PTH Calcitriol is more important than patients treated with Alfa-calcidol.

Discussion: The basal Vit D in Tuareg is less important than non Tuareg in the same region. PTH rises more quickly for a comparable concentration of Vit D Calcitriol and alfacalcidol are widely used in the treatment of secondary hyperparathyroidism. PTH response of patients treated with calcitriol is more important than patients treated with

alfacalcidol.

Conclusion: Calcitriol Oral is commonly used to treat secondary hyperparathyroidism in patients with CKD but the magnitude of the response to PTH TRT is highly variable

0016

CHALLENGES OF MANAGING KIDNEY DISEASES IN RESOURCE POOR COUNTRY

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Background: With economic recession and non availability of established health insurance, cost of care for kidney diseases is high

Objective: To find out challenges associated with managing glomerular diseases glomerular di diseases seen between Feb 2006 to 6eb 2011. were studied.Information collected include biodata,laboratory investigation, biopsy and dialysis

Results: 110 renal cases were seen during the period,30(27.3%) had glomerular disease with male :female 2.3:1.Glomerulonehritis accounted for18/30, 12 of these were acute and 6 were chronic while nephrotic accounted for40% of the cases. Only 7 did ultrasound scan,3 did biopsy. Of the 7who needed dialysis one one had it done.4 death were recorded.

0018

THE CLINICAL PRESENTATION OF KIDNEY DISEASE IN ADULTS AT A CENTRAL HOSPITAL IN MALAWI

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Introduction: No studies have examined how kidney disease in adults presents to health services in Malawi and correspondingly, there is no outcome data from admissions with kidney disease. This study examined the clinical presentation and outcomes of kidney disease in a central hospital in Malawi to enhance service provision, determine research opportunities and improve outcomes.

Methods: A new nephrology service at a central hospital in Malawi has been established. Routine, fully anonymised, demographic, laboratory and clinical data were prospectively collected over 2 years in adults of 16 years with kidney disease. Clinical and laboratory parameters were analysed by a nephrologist to determine the likely cause and nature of kidney disease.

Results: 213 patients were referred in the first 2 years of the service, 118 male (55.4%), mean age 40.3 years, 66 (31.0%) HIV positive. 148 (69.5%) patients presented with evidence of chronic kidney disease, 43 (20.2%) with acute kidney injury, and 12 (5.6%) with acute on chronic kidney disease. Glomerular disease was the primary renal disorder in 32.4% of patients. 15/31 (48.4%) patients with acute kidney injury and 17/55 (30.9%) of patients with chronic kidney disease died during admission irrespective of the underlying cause or severity of kidney disease.

Conclusions: Patients present with advanced kidney disease,

the inpatient mortality is high and glomerular pathology is the main aetiological factor. Intensification of efforts to detect kidney damage earlier combined with optimised clinical care and improved laboratory services are required to reduce the morbidity and mortality associated with this condition in Malawi.

0020

VERBAL AUTOPSY STUDY IN ADULT GHANAIS IN THE ASHANTI REGION: PRELIMINARY FINDINGS HIGHLIGHTING THE IMPORTANCE OF CARDIOVASCULAR DISEASE

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Introduction In 2001/02, 1,013 adults [385 men, 628 women], aged 40-75 living in 12 villages in Ashanti, Ghana were studied. Overall, 28.7% had a BP \geq 140/90. 125 participants had a GFR $<$ 60 mL/min/1.73 m².

Methods The 12 villages were re-visited in 2011/12; 208 participants had died. Using the WHO document Verbal autopsy standards [2007], it was possible to identify a respondent for 201 of the deceased (96.6% response rate). Each respondent was interviewed, from which it was possible to assign a WHO category for cause of death.

Results Overall death rate at 10 years was 20.5%: men 29.3% [113/385], women 15.1% [95/628]. Diseases of the circulatory system [VA04] accounted for 54 deaths (25.9%): 28.3% [32] in men and 15.2% [22] in women. Overall, 8.3% [32] of the original 385 men, and 3.5% [22] of the 628 women, died of cardiovascular diseases. 10 deaths were classified as VA07 [Renal disorders].

Conclusions These initial observations show that in a healthy Ghanaian population cardiovascular disease, as defined by verbal autopsy, is an important cause of death. Renal disease, though less common than other cardiovascular causes of death, is nevertheless an important underlying risk factor, potentially amenable to preventive strategies through risk factor modification.

0029

ABNORMAL IGA1 O-GLYCOSYLATION IN A MULTI-ETHNIC POPULATION OF IGA NEPHROPATHY PATIENTS IN KWAZULU NATAL, SOUTH AFRICA.

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Background: IgA nephropathy (IgAN) is a leading cause of chronic kidney disease worldwide. The pathogenesis is poorly understood and no curative therapy currently

exists. Studies in Caucasian and Asian (Chinese; Japanese) populations, and one of African Americans, describe elevated abnormally degalactosylated IgA1 molecules in sera, exposing the GalNAc antigen. There is a lack of pathogenetic data on IgAN in Africa.

Aim: To study the O-glycosylation of serum IgA1 molecules in a multi-ethnic population of IgAN patients in KwaZulu Natal, South Africa.

Materials And Methods: - An ELISA based lectin binding assay was used to measure and compare the level of IgA1 degalactosylation between IgAN patients and controls. Participants included individuals of African, Caucasian, Coloured, Indian (predominantly) and mixed-race descent. Nineteen IgAN patients at various stages and 20 healthy controls were recruited between 2005 and 2011. The mean absorbance values were recorded. A non-parametric Wilcoxon matched pairs test was used accordingly. The two-tailed p value was used to assess for statistical significance between the groups.

Results: When all the means of the tests were compared, the average means of the tests of the IgAN patients was 0.3678 ± 0.0790 (SEM) which is statistically significantly greater than the normal controls which was 0.2969 ± 0.0586 (SEM) ($p = 0.0076$). IgAN patients exhibited abnormal IgA1 O-glycosylation with a greater level of terminal degalactosylation of IgA1 in comparison to normal controls.

Discussion: This finding is consistent with that of other populations globally; supporting a universal strategy for therapeutic or curative agents that target this aberrancy.

0031

AN ANALYSIS OF PERITONEAL MEMBRANE TRANSPORTERFUNCTION IN CAPD PATIENTS AT INKOSI ALBERT LUTHULI HOSPITAL, DURBAN, SOUTH AFRICA.

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Background: Peritoneal dialysis remains a practical and cost effective form of dialysis especially in resource limited countries. It is necessary to determine the membrane function in order to tailor the dialysis prescriptions. We analysed the proportion of different membrane types at our facility and compare them with other data from other countries.

Method: The Peritoneal equilibration tests of 53 consecutive patients were interpreted using the Adequest 2.0 programme from Baxter R based on a standard 4 hour test. The tests were performed from October 2010 until May 2011.

Results: There were 30 females and 23 males. The age range was 21 to 64 years and the mean age was 43.4 years. The PET was done between 4 months to 2 years after initiation of chronic ambulatory peritoneal dialysis. High transporters accounted for 31% of patients. High average transporters made up 41% of membranes. There were 26% low average transporters and 2% low transporters.

The mean KT/V and creatinine clearance were 1.75 and 55.31 L/week, respectively. The average albumin was 34.06 g/l and the mean body surface area was 1.75 square meters. Black African patients accounted for 47% of patients. Sub-analysis of Black African patients showed that 36% were high transporters and 40% high average transporters. There was no statistically significant difference compared to the non-Black group ($p=0.6487$, using Chi-square test).

Conclusion: Our study revealed that peritoneal membrane function was similar to those seen in Saudi Arabia, Canada, New Zealand and India. The analysis helped improve prescriptions for CAPD.

0032

CAROTID INTIMA MEDIA THICKNESS AND CARDIOVASCULAR RISK FACTORS IN KIDNEY TRANSPLANT RECIPIENTS.

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Introduction And Aims: Cardiovascular disease (CVD) is common in kidney transplant recipients (KTRs) and majority of death following transplantation is due to CVD.

Carotid intima-media thickness (cIMT), is a proven surrogate of atherosclerosis. In this study we aimed to determine the prevalence and predictors of cardiovascular risk among KTRs at the Charlotte Maxeke Johannesburg Academic Hospital, South Africa and to examine the relationship between cardiovascular risk factors and cIMT.

Methods: Patients aged 18 years and above who received kidney transplant between Jan 2005 and Dec 2009 were recruited. A questionnaire that captured various cardiovascular risk factors was administered. Patients records were assessed for information on their post transplant follow up. Echocardiography and carotid doppler were done. Framingham Risk Score was used to categorize patients CVD risk. Results were analyzed using statistical package for social sciences version 17, p value of 0.05 was considered significant.

Results: 100 patients (63 male, 37 female) were recruited with a mean age of 42.2 ± 12.42 , range of 19 to 70 years. Thirty six patients (36%) were high cardiovascular risk. Predictors of higher CVD risk were proteinuria ($p=0.022$), higher cumulative steroid ($p=0.028$), triglycerides ($p=0.04$) and plaques in the carotid artery ($p=0.012$). Mean cIMT of the study population was 0.62 ± 0.21 mm with a range of 0.42 to 1.45 mm, 14 (14%) had a carotid artery plaque. Age, BP, LVMI, presence of plaque, BMI and waist circumference showed positive correlation with cIMT.

Conclusion: CVD risk was high and correlates with cIMT in our KTRs. Routine follow up should include measurement of cIMT in KTRs.

0033

PROTEINURIA, GRAFT OUTCOME AND CARDIOVASCULAR RISK AMONG KIDNEY TRANSPLANT RECIPIENTS IN A SOUTH AFRICAN PUBLIC HOSPITAL.

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Introduction And Aim: Proteinuria is a marker of poor graft survival and an independent risk factor for total and cardiovascular mortality in the transplant population. In this study, we aimed to determine the prevalence of proteinuria in our kidney transplant recipients (KTRs) and its relationship with graft function and cardiovascular risk factors.

Methodology: Patients aged 18 years and above who received kidney transplant at the Charlotte Maxeke Johannesburg Academic Hospital between January 2005 and December 2009 were recruited. A questionnaire that captured various cardiovascular risk factors was administered. Patients records were assessed for information on their post transplant follow up. Body mass index (BMI) and waist circumference were determined. Echocardiography and carotid doppler were done using Philips iE33 machine (Philips Corporation USA). Framingham Risk Score was used to categorize patients cardiovascular risk. Graft dysfunction was defined as estimated GFR of less than $60 \text{ ml/min/1.73m}^2$ based on the modification of diet in renal disease equation. Results were analyzed using statistical package for social sciences version 17, p value of 0.05 was considered significant.

Results: Proteinuria was present in 51%, the mean \pm SD urinary protein excretion per day was 1.67 ± 2.00 with a range of 0.4 to 9.4. Proteinuria correlated with graft dysfunction, increased left ventricular mass index, high CVD risk and anaemia. Graft function correlated with physical exercise.

Conclusion: Proteinuria is a marker of graft dysfunction and is associated with high cardiovascular risk in our KTRs. Strategies aimed at reducing proteinuria including blood pressure control and physical exercise in kidney transplant recipients are recommended.

0034

COMPARATIVE EVALUATION OF THE GLOMERULAR FILTRATION RATE IN PATIENTS WITH CHRONIC KIDNEY DISEASE, BY THE FORMULAS OF COCKROFT-GAULT AND MDRD AT CONAKRY.

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M, Touré YI
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Our work had for objective to estimate and to compare the GFR (glomerular filtration rate) calculated by the two formulas, C-G (COCKROFT-GAULT) and MDRD

(modification of the Diet in the renal disease) of patients with CKD (chronic kidney disease) in Guinean. The survey was retrospective and descriptive, back up to 2010 to 2008. 323 cases of CKD were found among the 743 hospitalizations registered on that period. Only the stages III, IV and V of the CKD were considered. The clearances have been calculated by the two formulas: C-GS and MDRDS. CKD prevalence was 43, 5%. The average age of the patients was 47[18-90]. They were 174 (54%) men and 149 (46%) women either a sex-ratio of 1, 2. The average creatininaemia was 672 $\mu\text{mol/L}$ (168-2854). The average valued GFR was 16,2 mL/min by C-GS and 21,1 mL/min by MDRD. According to age, the patients of less than 50 years old were 202 (63%) by C-G and 210 (65%) by MDRD; those of more than 50 years old were 121(37%) by C-G against 113(35%) by MDRD. According to the sex and the CKD stage, they were 11% men, 12% women by C-G, and 5% men, 8% women by MDRD at the stage III. For the stage IV they were 14% men and 15% women by C-G against 11% men and 12% women by MDRD. At stage V the men were 28% the women 27% by C-G against 29% and 27% respectively by MDRD.

0036

TENOFOVIR INDUCED RENAL TUBULAR DYSFUNCTION: A CASE REPORT

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Background: Survival of patients infected with HIV after introduction of HAART has led to discovery of the many side effects of these drugs, Tenofovir is one example and it is a mitochondrial toxin.

Case Report: A 10 year old girl presented with weight loss, weakness of lower limbs, bone pain and skeletal deformities over a period of 6 months. She could no longer walk. She has been on her second HAART regime consisting of Tenofovir, Zidovudine and Kaletra for 3 years. At the time of presentation she had severe muscle wasting, skeletal manifestations of rickets: pectus carinatum, Harrison sulci, splaying of the ends of long bones and a dinner fork deformity of the right wrist. Urine dipsticks showed proteinuria and glucosuria. Urine chemistry tests revealed aminoaciduria, u-phosphate 21.7mmol/l, u-protein:creatinine ratio 0.65 g/mmol, u- β 2microglobulin:creatinine ratio 34.4. Blood investigations showed hypokalemic metabolic acidosis with serum-phosphate 0.56mmol/l, TRP 51.8%, s-creatinine 36 $\mu\text{mol/l}$, s-calcium 2.38mmol/l, s-ALP 2191 U/l, PTH 51.9ng/l. S-25(OH)D₂, 25(OH)D₃ and 1.25dihydroxy Vit D levels were normal. The results were in keeping with De Toni Fanconi Syndrome X-rays of the long bones showed widening of the growth plate and splaying, fraying and cupping of the metaphysis and Salter Harris V fracture of the right wrist. She was treated with Phosphate Sandoz, one alpha (Alfacalcidol) and sodium bicarbonate. Tenofovir was replaced with Abacavir. After 6 months of therapy her skeletal deformities has largely resolved, height improved: 117-124 cm, s-ALP decreased from 2191 to 229U/l. Conclusion: Monitoring of renal tubular function is important in children treated

with Tenofovir. Early identification of renal dysfunction or toxicity and withdrawal of the offending drug before the development of irreversible tubular injury is vital. The effects of tenofovir are reversible with withdrawal of the drug.

0037

TREATMENT OF STEROID-RESISTANT NEPHROTIC SYNDROME IN CHILDREN IN RURAL BANGLADESH

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We report two cases of nephrotic syndrome in rural Bangladeshi children (a girl of 2 y and a boy of 3 y). In both cases, the disease did not respond to 4 weeks of high dose oral prednisolone. The girl was steroid-resistant from the outset whereas the boy had an initial episode which responded to conventional oral corticosteroids. The girl had received several second-line agents from a teaching hospital including ciclosporin, which could not be monitored in a rural hospital setting. Both children had severe episodes of sepsis requiring in-patient treatment for intravenous antibiotics.

Both children entered remission 2-9 weeks after commencing a regime of intravenous methylprednisolone pulses and oral cyclophosphamide, based on the so-called "Mendoza regime". They each received a total of 12 weeks of cyclophosphamide at 3 mg/kg/d. Both children remain in remission with a follow-up of 4-6 months.

The management of childhood steroid-resistant nephrotic syndrome can be challenging in resource-rich countries. In rural areas in the developing world, additional difficulties such as limited laboratory facilities and the prohibitive cost of drugs which is usually borne by the family make this a particular challenge. Intravenous methylprednisolone and cyclophosphamide are relatively cheap drugs and may be safely given without plasma biochemistry monitoring. The use of remote paediatric nephrology advice enabled families to remain close to home where concordance with therapy is likely to be enhanced as a result of less economic family disruption

0039

ESTIMATED GLOMERULAR FILTRATION RATE AT INITIATION OF HAEMODIALYSIS IN A NIGERIAN TERTIARY CENTRE.

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Background: Decreasing glomerular filtration rate generally depicts progression of renal disease and renal replacement therapy is indicated as patients approaches end stage renal disease. The GFR of end stage renal disease patients at initiation of haemodialysis varies depending on factors

including, comorbidities, physicians practice, geographical region amongst others.

Aim: To determine the levels of estimated GFR of ESRD patients at initiation of haemodialysis. To determine the association between variables such as sex, age, comorbidities on one hand and time of initial dialysis.

Method: This is a hospital-based retrospective observational study. Records of all ESRD patients dialysed over a 6 month period were collated. Patients with acute on chronic kidney disease were excluded. GFR was estimated using MDRD formula. Early dialysis was defined as dialysing at an estimated GFR of >10ml/min. Data analysis was done using SPSS version 17.

Results: Mean age was 45±18 years while male to female ratio was 1.2: 1. Prevalence of hypertension and diabetes among patients was 57.7% and 20.5% respectively. Mean serum creatinine concentration was 12.6±7.1 mg/dl while mean estimated GFR was 14.3±7.6 ml/min. The early dialysers constituted 65.4% of the patients studied. There was no significant association between age, sex, hypertension, diabetes on one hand and time of dialyse on the other.

Conclusion: Majority of ESRD patients in the centre dialysed early and no predictor of the time of dialysis was identified. Further research geared towards identifying possible predictors of early dialysis among ESRD patients is required.

0040

HAEMOGLOBIN CONCENTRATION PROFILE OF RENAL PATIENTS SEEN IN DELSUTH OUTPATIENT CLINIC.

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Background: Anaemia is defined as a haemoglobin below 14g/dl in males and <12g/dl in females. It is one of commonest features of significant decline in renal function. Haemoglobin concentration of renal disease patients vary and depend on a number of factors, however it is largely directly proportional to glomerular filtration rate.

Aim: To determine the haemoglobin concentration profile of patients referred to the renal outpatient clinic. To determine the relationship between haemoglobin concentration and renal function of patients.

Method: This is a hospital-based prospective observational study. Consenting 74 patients were recruited consecutively as they presented for initial assessment at the renal outpatient clinic. Sociodemographic data was collated using an open ended questionnaire. Haemoglobin concentration and serum creatinine were measured using the Reflotron® analyser and appropriate strips. GFR was estimated using MDRD formula. Anaemia was defined as haemoglobin ≤ 12g/dl. Data analysis was done using SPSS version 17.

Results: Mean age was 50±16 years while sex ratio was 1.64: 1 in favour of males. Prevalence of anaemia among patients was 76.16%. Mean haemoglobin concentration was 10.0 ±2.8g/dl. Serum creatinine ranged between 0.5-10.0mg/dl while mean estimated GFR was 63.2±50.8ml/ min. There

was a significant negative correlation between haemoglobin concentration and GFR as well as serum creatinine (Pearson's correlation -0.647 and -0.687 respectively).

Conclusion: Anaemia is highly prevalent among patients seen in the renal outpatient clinic. Haemoglobin concentration is directly proportional to GFR of patients. There is no significant relationship between haemoglobin concentration and age of the patients.

0041

SCREENING FOR HYPERTENSION AND OBESITY IN A RURAL POPULATION IN DELTASTATE, NIGERIA.

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Background: Obesity, defined as Body mass index (BMI) >30Kg/m² and Hypertension are among the commonest risk factors for cardiovascular disease globally. The prevalence rates of both are said to be high even in developing nations and are also contributory to the rising prevalence of CKD.

Aim: To determine the prevalence rates of Hypertension and Obesity in the study population. To determine any relationship between blood pressure and BMI in the population

Method: This is a community-based cross-sectional study. Consenting 350 individuals were recruited consecutively as they presented for voluntary screening during the 2012 'world kidney day' celebration. Blood pressure was measured using an Accoson sphygmomanometer and an average of 3 readings taken as BP. Weight and Height were measured using a stadiometer.

Results: Mean age was 37±13 years while sex ratio was 1.3: 1 in favour of females. Prevalence of Obesity and Hypertension were 88.5 per 1000 and 168.5 per 1000 respectively. Mean BMI was 23.15± 4.35 Kg/m² while mean systolic and diastolic blood pressure were 119± 21 mmHg and 72±13mmHg respectively. Blood pressure increased significantly with age. There was a significant association and a positive correlation between BP and BMI (p=0.0001, Pearson's correlation +0.202).

Conclusion: The prevalence of Obesity and hypertension are high in the population studied and Blood pressure increases significantly with increasing BMI.

0042

A CASE OF SOLITARY MULTIFOCAL CYSTIC KIDNEY WITH SEVERE PYONEPHROSIS

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A 23year old Nigerian lady, was admitted with a history of recurrent right flank pain for 5 years and right sided abdominal swelling first noticed 5 months prior to presentation. A further history of associated fever, vomiting, passing foul smelling purulent urine and bilateral leg swelling prompted nephrology referral. Medical history

revealed recurrent treatment for urinary tract infection and recurrent spontaneous abortions. She had just delivered a pre-term foetus that eventually died of septic complications. Physical examination revealed a young febrile lady, with palor, grade IV digital clubbing and bilateral pitting pedal oedema. Her abdomen was distended with a large tender mass measuring 20cm by 24cm at the right lumbar region extending to her iliac fossa. Dipstick urinalysis showed turbid urine with blood and leucocytes. Complete blood count revealed leucocytosis, haemoglobin 6.6g/dl, platelets 524,000/mm³. Serum creatinine was 0.5mg/dl while urea was 18mg/dl. Abdominal ultrasound scan revealed a right multicystic kidney extending into the pelvis with debris within the cyst. Abdominal CT scan Revealed large multiseptated cystic mass with lobulated margins in the right kidney extending from the right upper quadrant of the abdomen down to the pelvis with enhancement of the septae of the mass. The left kidney was normal and secreted contrast adequately. She had urological intervention with over 3.5 litres of frank pus aspirated.

Conclusion: this case illustrates the importance of identifying a possible underlying disease in patients with recurrent urinary tract infections.

0044

CLINICO-PATHOLOGICAL STUDY OF SICKLE CELL NEPHROPATHY IN NIGERIANS.

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Background: Sickle cell disease (SCD), a genetically inherited disease, often presents with disabling acute and chronic complications which can occasionally be fatal including kidney disease. This study assessed the relationship between kidney function, renal histopathology and haematologic parameters.

Methodology: The study prospectively screened 70 patients with SCD for the presence of proteinuria (microalbuminuria or overt proteinuria), glomerular filtration rate (GFR) <60ml/min and tubular dysfunction and renal biopsy was performed in those with indications.

Results: The age of the patients ranged between 18 and 56 years (Mean±SD; 27.5±8.9years) with a female preponderance. Of the 70 patients screened, 25 (35.7%) had CKD as defined by GFR <60ml/min and/or proteinuria, 23 (32.9%) patients had GFR <60ml/min and 5 (7.1%) had hyperfiltration GFR >120ml/min; overt proteinuria was found in 4 (5.7%) while microalbuminuria was found in 12 (17.1%). GFR correlated positively with haematocrit (r=0.472;p<0.0001) and BMI (r=0.518; p<0.0001) while microalbuminuria correlated negatively with GFR (r

=-0.255; p=0.04). All recruited patients had markedly elevated fractional excretion of potassium (FEK) while 98.6% had elevated fractional excretion of sodium (FENa). Hyposthenuria was present in 85.7%. GFR correlated negatively with percentage sickle cell count(r=-0.616, p<0.0001), FEK(r=-0.448, p<0.0001) and FENa(r=-0.336; p=0.004). Of the 22 successfully biopsied patients, renal histology revealed mesangioproliferative glomerulonephritis in 11 (50%), 6 (27.3%) had minimal change disease, 3 (13.6%) had focal segmental glomerulosclerosis while interstitial nephritis was diagnosed in 2 (9.1%) patients.

Conclusion: Kidney disease is common among SCD patients and is characterized by a preponderance of tubular dysfunction and mesangioproliferative glomerulonephritis.

0045

DEPRESSION AND QUALITY OF LIFE IN PATIENTS ON LONG TERM HAEMODIALYSIS AT THE RENAL AND CARDIOTHORACIC UNIT OF THE KORLE-BU TEACHING HOSPITAL.

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Background: Depression is not uncommon amongst end stage renal disease patients on long term haemodialysis. The disease condition itself, dialysis treatment and incidence of depression all contribute to the poor quality of life in these patients. In Ghana, there is very little data on the prevalence of depression and the quality of life in patients on long term haemodialysis.

Objectives: To assess the prevalence of depression and to assess the quality of life in long term haemodialysis patients

Study Design: This study was a cross-sectional study.

Setting: Dialysis units of the medical block and cardiathoracic centre of the Korle-Bu Teaching Hospital.

Methods: A total of 106 patients (63 males and 43 females) aged 18 years and above participated in this study. Depression was assessed using the Patient Health Questionnaire (PHQ) and quality of life was assessed using World Health Organization quality of life instrument (WHOQOLBREF).

Results: The study sampled 106 patients with a mean age of 48.7±13.3 years. Majority of the population were males (59.4%). The prevalence of depression was found to be 44.4%. Quite a number of our patients (18.9%) had an overall poor quality of life. There was a significant association between overall quality of life and educational status (p = 0.003) and source of income (p = 0.014).

Conclusions: This study found out that depression was common amongst ESRD patients on long term haemodialysis at the Korle-Bu Teaching Hospital. Quite a number of these patients had an overall poor quality of life.

0046

ESTABLISHMENT OF A NATIONAL DIALYSIS AND TRANSPLANT REGISTRY

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The South African Dialysis and Transplant Registry (the Registry) is an information database established by the South African Renal Society which aims to provide critical information on end-stage renal disease (ESRD) and renal replacement therapy (RRT) in South Africa. Our Registry Committee is responsible for coordinating the collection, analysis and publication of data concerning end-stage renal disease and transplantation in South Africa. The primary output would be an annual report, but may also include other academic papers and presentations. The Registry allows for the sharing and use of this information for informed decision making and can be used for many purposes including the planning of health service delivery and research. The Registry is registered as a long-term observational study with ethics approval for country-wide data collection. The development and operation of the Registry will be described and challenges encountered discussed. Provisional results based on data collected to date will be presented.

0047

CARDIOVASCULAR RISK FACTORS IN RENAL TRANSPLANT RECIPIENTS ATTENDING NEPHROLOGY CLINICS IN NAIROBI, KENYA

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OBJECTIVE: To determine the prevalence of established cardiovascular risk factors in Renal Transplant Recipients in Nairobi, Kenya.

Design: Cross-sectional clinic based descriptive study

Subjects: Adult renal allograft recipients attending nephrology clinics in Nairobi, Kenya

Results: 91 renal allograft recipients were evaluated with a male to female ratio of 2.1 to 1 and mean age of 44.2 years (SD12.44). Hypertension, dyslipidemia and abdominal obesity by waist-hip ratio were the highest prevalent risk factors at 95.6%, 73.6% and 68.1% respectively. Significant associations were found between the presence of a second renal allograft and NODAT (P = 0.011) as well as history of pre-transplant diabetes mellitus and use of insulin with impaired graft function (P = 0.026 and P = 0.004 respectively). Most allograft recipients were on Prednisolone, Cyclosporine and Mycophenolate mofetil combination therapy with those on Azathioprine having the longest duration of exposure (142.0 months) while those on Everolimus had the shortest duration (7.5 months). No significant associations were found between any of the immunosuppressant agents and the cardiovascular risk factors.

Conclusions: There is a high burden of CVD risk factors among renal transplant recipients and they should be prioritized as being at high risk for cardiovascular mortality with local adaptation of guidelines on cardiovascular risk factors. Larger prospective studies should be carried out to characterize post-transplantation anemia, control of diabetes mellitus and associations between immunosuppressive agents and cardiovascular risk factors.

0049

OUTCOME OF NON-TUNNELED NON-CUFFED CENTRAL VENOUS CATHETERS IN PATIENTS ON CHRONIC HEMODIALYSIS

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Background: Vascular access is a challenge in end-stage renal disease patients requiring emergency dialysis. We investigated the adverse outcomes of non-tunneled catheters and determinants in patients on chronic hemodialysis at the Yaounde General Hospital hemodialysis center, Cameroon.

Methods: This was a prospective study of eleven months duration (February-December 2008) involving 81 non-tunneled catheters (63 femoral, 18 internal jugular) inserted in 72 adults (47 men, 65.3%) on chronic hemodialysis. Clinical and laboratory data were used to investigate catheter outcomes during follow-up.

Results: Sixty five (80.2%) catheters were inserted for emergency dialysis, 11 (13.6%) for a failed native arterio-venous fistula and 5 (6.2%) for a failed prior catheter. The mean time-to-catheter removal was 35±28 days. Elective removals, catheter related and unrelated complications accounted each for a third of catheter removal. The main catheter related complications were infections (17/27, 62.9%) and bleeding (6/27, 22.2%), which were associated with unemployment (p=0.0002) and longer duration of catheter (p=0.004). The catheter-related infections were sepsis (11.8%), exit-site (29.4%) and both (58.8%); complicated by death in 11/17 (64.7%) cases. Fever (94.1%), pain (88.2%) and pus (70.6%) were the main infectious signs with Staphylococcus aureus involved in 70.6%. Unemployment was significantly frequent in patients with infectious complications (76.5% vs. 26.6%, p=0.0004).

Conclusions: Non-tunneled hemodialysis catheters are mainly used for emergency dialysis in this setting. Catheter related infections due to staphylococcus are the leading complications associated with unemployment and longer utilization. Efforts are needed to improve early transfer of patients to nephrologist for better preparation for renal replacement therapy.

0051

BLOOD PRESSURE AND PULSE PRESSURE RELATIONSHIPS WITH KIDNEY FUNCTION IN ASHANTI, GHANA

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Introduction: Hypertension is a major risk factor for adverse cardiovascular outcomes. However, correlations between individual components of hypertension – pulse

pressure (PP), and systolic (SBP) and diastolic blood pressure (DBP), and kidney function in healthy populations is unknown.

Methods: We undertook a cross-sectional study in 944 inhabitants of 12 villages in the Ashanti region of Ghana [men 355, women 589; aged 40-75 years]. Data collected included demographics, height, weight, BP and GFR.

Results: The characteristics of the population were: age 55(11) [mean(SD)] years, men 38%, semi-urban village-dwellers 51.7%, diabetes 1.5%, BMI 21(4)kg /m², 24hour CrCl 84(23)ml/min/1.73m². 29% had BP >140/90mmHg; SBP and DBP were 125/74(26/14) mmHg, PP was 51(17) mmHg. PP increased with age by 0.55(0.46 to 0.64) mmHg/year. PP was higher (53(17) v 49(15) mmHg; p<0.001) in the semi-urban participants. GFR decreased with increasing PP [-0.19 (-0.27 to -0.10) ml/min/1.73m²/ mmHg] and SBP [-0.09 (-0.14 to -0.03) ml/min/1.73m²/mmHg]; there was no significant relationship with DBP [-0.04 (-0.15 to 0.06)]. After adjusting for SBP the relationship between GFR and PP became steeper [-0.31 (-0.50 to -0.12) ml/min/1.73m²/mmHg]. GFR increased, though not significantly, as SBP increased after adjusting for PP [0.09 (-0.03 to 0.21) ml/min/1.73m²/mmHg]. Using multivariate regression analysis that included PP, age, gender, BMI, only increasing age [-0.75 (-0.88 to -0.62)] and decreasing BMI [0.50 (0.17 to 0.82)] were significantly associated with decreased kidney function.

Conclusions: In this cross-sectional study of a homogeneous West-African population, PP increased with age and had a better relationship with declining kidney function than SBP or DBP.

0055

RENAL BIOPSY PATHOLOGY SERVICES AND SPECTRUM OF RENAL DISEASES AT A PRIVATE REFERRAL LABORATORY IN KENYA

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Renal biopsy and renal pathology services are generally inadequate in most parts of Africa. In turn, data on diagnosis made on renal biopsies is also scant. The author presents his experience over a period of about two years since introducing renal pathology services at a private independent laboratory in Nairobi, with a series of up to 100 biopsies evaluated. A small proportion of cases had immunofluorescence or immunohistochemical studies done as adjunct. FSGS, MCD, lupus nephritis, acute tubule-interstitial nephritis, membranous glomerulonephritis and MPGN are the commonest diagnoses made. In some instances, pathological diagnoses led to identification of systemic conditions previously undiagnosed clinically e.g. paroxysmal nocturnal hemoglobinuria and plasma cell dyscrasia. Transplant biopsies were <10% of cases with acute humoral rejection being the commonest diagnosis. The presentation highlights some of the challenges faced in resource constraint settings where renal biopsies have not taken root as a routine in patient evaluation where indicated. There is a need to increase awareness and promote the utilization of renal biopsies for patient work-up. Clinicians

and pathologists need to coordinate in widening access to this important service to patients.

0057

HEPATITIS B ASSOCIATED NEPHROPATHY (HBVAN) IN A TERTIARY HOSPITAL IN SOUTH WEST NIGERIA.

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Background: There are few reports on HBVAN in Nigerian children.

Methodology: A retrospective study of HBsAg seropositive children managed for kidney disease in our hospital between January 2006 and December 2012 was performed.

Results: 16 children (12 males), aged 3 -13 (mean 9.4 ± 2.8) years were identified. The clinical presentation were nephrotic syndrome (NS) in 11 children, glomerulonephritis (GN) in 4 and acute kidney injury (AKI) in another child. Among children with GN 2 needed dialysis at presentation, on account of end stage kidney disease (ESKD) or AKI each occurring in 1 child. 9 renal biopsies were performed and showed minimal change disease (n=4), FSGS (n=3), and MPGN (n=1) in the children with NS; and Focal Global Sclerosis in a child with GN. Management of NS included use of corticosteroids in 9 patients combined with the use of lamivudine in 3. 1 child with GN received corticosteroids and this was combined with lamivudine. Remission occurred only in 8 children with NS and it followed steroid therapy in 7, and was spontaneous in 1 child. 5 children who were not in ESKD at presentation progressed to ESKD, 3 children with NS and 2 with GN. 2 of the children with NS and progression to ESKD had FSGS and steroid resistance while the third did not receive corticosteroid therapy.

Conclusion: In Nigeria the clinical picture of GN, steroid resistance and FSGS appear to be poor prognostic factors in HBVAN.

0058

THE CHALLENGES OF ESTABLISHING A KIDNEY TRANSPLANT PROGRAM IN SUB-SAHARAN AFRICA: EXPERIENCE FROM THE FIRST CASE IN ILORIN IN THE NORTH-CENTRAL ZONE OF NIGERIA

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Background: Kidney transplantation is the best treatment for patients with end stage kidney disease. It offers better quality of life and cost savings compare with dialysis. In Nigeria with 160million population and ESKD burden of 10% of hospital admissions, 161 cases have so far

been performed from 7 centres. This report highlights the challenges from experience of the first case of living related kidney transplantation in Ilorin in the north-central zone of Nigeria.

Methods: The patient is a 28 year old junior employee of a private construction company who had ESKD from chronic glomerulonephritis and his donor is his elder brother, a 30 years old teacher. His income was less than 500 dollars per month and had declined travelling abroad to have kidney transplant as advised by similar patients. His employer and our Hospital financed his treatment. Majority of the pretransplant investigations were done in our hospital but specialized ones such as renal angiography, HLA typing, CMV and EBV serology were done in other centres. The results were satisfactory and was 50% HLA match. Results: The surgery was done on the 10th of September, 2012. He had delayed graft function due to AKI for 20 days and later regained full function. He was maintained on MMF/Tacrolimus/ Prednisolone regimen. He had fungal UTI and sepsis which were managed. The clinical, biochemical and haematological profiles was satisfactory and was discharged.

Conclusions: The challenges involved in establishing a transplant program in Nigeria include inadequate facilities, logistic problems, poverty, lack of political will, transplant tourism and high risk for infections.

0059

QUALITY OF LIFE OF PATIENTS WITH END-STAGE RENAL DISEASE IN GUINEA

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Aim This questionnaire-based study included 69 patients with end-stage renal disease (ESRD). Factors that affected their quality of life (QoL) were determined.

Methodology This study was conducted over 12 months. The included patients had ESRD and creatinine clearance of <15 ml/min. We used the SF36 questionnaire and classified the results into two groups: scores <50/100 as poor QoL and scores ≥50/100 as good QoL. Factors that determined QoL scores were cessation of all activities and additional effort required, severe or mild pain, good or bad health, and reduced or not reduced social and physical activities.

Results Of the 69, 32 (46.3%) had a good QoL and 37 (53.7%) had a poor QoL. The latter group's average age was 54±4 years, the good-QoL group's average age was of 47.6 ± 4 years (p=0.01). Patients with a good QoL had better overall health but this was not statistically significant (OR=0.42; 95% CI; p=0.14). Patients with a poor QoL had more severe pain (p=0.002); however, good QoL did not protect against mental problems (OR=46.67; 95% CI; p=0.0001). Mental status (p=0.01) and social activities (p=0.001) were reduced, and there were more co-morbidities (29.7% with >4, p= 0.01) in the poor-QoL group.

Conclusion Good QoL was associated with younger

age, fewer comorbidities, less severe physical pain, and fewer physical or social limitations. QoL could increase by improving co-morbidity treatments, giving more effective pain control,

0061

HOME-BASED EDUCATION, SCREENING AND KIDNEY CARE IN RURAL AFRICAN COMMUNITIES

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We will develop home-based kidney education, screening and treatment programs for implementation in rural African communities. The program will be modeled on that used in the Zuni Pueblo, a rural American Indian community in the US, which experienced interrelated epidemics of obesity, type 2 diabetes, and chronic kidney disease. The Zuni Kidney Project has been funded by the US National Institutes of Health (NIH) and Dialysis Clinic Inc. (DCI), a large not for profit dialysis provider, for 15 years.

In Phase I we will hold focus groups with community members, tribal leaders and health care professionals to identify potential barriers to health education, screening and treatment to ensure widespread community support. In Phase II we will implement population based screening using the household as the sampling unit. We will train and certify community health care workers (CHCW) to screen a random population sample for diabetes, hypertension and kidney disease. CHCW will interview household members, obtained personal and family medical histories, measured height, weight, and blood pressure; obtained blood (Hb A1c, glucose, creatinine) and urine (urine albumin:creatinine ratios) samples. Recognizing the needs of rural African communities will use Point of Care (PoC) determinations of these analytes. We will develop and implement the appropriate quality control procedures by obtaining randomly selected duplicate samples processed at a reference lab. In Phase III follow-up and treatment protocols will be developed in collaboration with ongoing investigations to maximize capacity and minimize duplication.

0062

SICKLE CELL GLOMERULOPATHY IN DAKAR: STUDY OF 11 CASES OF RENAL BIOPSIES

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Introduction: Few publications are dedicated to the practice of Kidney biopsy during the sickle cell nephropathy. Our purpose was to describe the indications of the kidney biopsy, histological and evolutive profile of anatomopathologic damage of sickle cell nephropathy in Dakar

Methods: a retrospective (December 2009-Aout 2011), and

multicentric study exploited histological kidney biopsy of sickle cell patients followed in Nephrology Departments of Dantec hospital and Child Fann hospital Albert Royers. Diagnostic, histological, therapeutic and evolutive data are exploited.

Results: on 292 kidney biopsies, 11 were made to sickle cell anemia patients (6SS, 1 SBth+, 4 AS) with 23,1-year-old average [13-51 years]. All had impur nephrotic syndrome with hypertension (1case), microscopic hematuria (11cases) and renal insufficiency (6 cases). The focal segmental glomerulosclerosis (5 cases) dominated, followed by the association specific lesions (hypertrophy glomerular, peri-tubular) to minimal glomerular damage (3 cases), membranoproliferative glomerulonephritis (2 cases) and the extra-membraneous glomerulonephritis (1cas). Under treatment, evolution was marked by 7 complete remissions and 1 death. Three patients were lost sight.

Conclusion: practice of kidney biopsy are uncommon, and main indication was impur nephrotic syndrom. Histological renal lesions are variable, dominated by focal segmental glomerulosclerosis. Kidney biopsy, keep significant interest, in sickle cell nephropathies, where the interest to revised indications.

0063

PATTERN OF DYSLIPIDEMIA IN NIGERIAN CHRONIC KIDNEY DISEASE PATIENTS

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Background: Cardiovascular diseases (CVD) are common in patients with chronic kidney disease and they are likely to die of cardiovascular complications before developing renal failure. One modifiable risk factor for CVD in CKD patients is dyslipidemia. Unfortunately dyslipidemia, which contributes greatly to the cardiovascular risk in CKD patients, is often an underestimated problem.

Methods: Patients with CKD stages 1- 5 had samples for serum lipid profile collected after an overnight fast of 8 - 14 hours. Samples were separated within 3 hours of collection and kept in refrigerator at 40C. Total cholesterol and HDL were assayed using enzymatic substrate method, while LDL was estimated using Friedwald formula. The glomerular filtration rate of each patient was estimated from serum creatinine using Cockcroft and Gault formula.

Results: One hundred participants, mean age 38.4±12.6 years, were recruited into the study. Eleven percent were diabetic while 82% had hypertension. Eighty four (84%), 95%CI 76.7 - 91.3%, of the participants had at least one lipid fraction deranged. Total cholesterol and LDL-c was elevated in 29%, high total cholesterol and triglyceride found in 7%, high total cholesterol and low HDL in 9%, 23% had elevated LDL occurring simultaneously with a low HDL. All the participants with stage 1 CKD had dyslipidemia; 90.0% of stage 2, 85% of stage 3, 74.3% of stage 4 and 89.3% of stage 5 patients had at least one fraction of the lipids deranged.

Conclusion: Dyslipidemia is common among our chronic

kidney disease patients and therefore requires active treatment in the Nigerian CKD population.

0065

DIABETES, FIRST CAUSE OF SECONDARY NEPHROTIC SYNDROME OF ADULTS IN DAKAR

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Introduction: The nephrotic syndrome is the common mode of exposure of chronic glomerulopathies. The diabetic nephropathy, is the second cause of renal failure in Senegal. The aim of this study is to determine epidemiological, clinical, biological and etiological profiles of secondary nephrotic syndrome.

Methods: The paper is based on a retrospective survey carried out in the Nephrology service of Aristide Le Dantec Hospital of Dakar over a 10 year period (2001-2010). A total of 47 patients with secondary nephrotic syndrome were surveyed. Demographic, clinical, biological and etiological data were analysed.

Results: The hospital prevalence of secondary nephrotic syndrome was 23%. The average age was 42 years with a sex ratio of 2,4. The oedema was found in 44% of cases. The High blood pressure was found in 38% of cases. The serum protein and albumin 48,5g/l and 20g/l respectively. The average serum creatinine was 12 mg/l, the average blood urea was 0,36 g/l. An impaired renal function was found in 44% of patients with mean serum creatinine clearance of 28,9ml/mn. The average proteinuria was 4,2 g/day. The Diabetes was found in 37,5% of cases, Hepatitis B in 29,2% and Sickle- cell disease in 12,5% of cases.

Conclusion: The Diabetes is a significant cause of renal failure in our country. The early prevention of diabetic nephropathy appears to be mandatory before the appearance of nephrotic syndrome because, blood dialysis is hard to get to and renal transplantation is still at the project stage.

0066

ANATOMOCLINICAL, THERAPEUTIC AND EVOLUTIONNARY ASPECTS OF PRIMITIVE NEPHROTIC SYNDROM IN DAKAR.

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Introduction: The nephrotic syndrom is the most common mode of exposure of chronic glomerulopathies which account for nearly half of chronic kidney failure observed in Africa. The objective of this piece of research is to determine epidemiological, clinical, biological, histological, therapeutic and evolutionnary profiles of the primitive nephrotic syndrom.

Methods : The paper is based on a retrospective survey

carried out in the Nephrology service of Aristide Le Dantec Hospital of Dakar over a 10 year period (2001-2010). A total of 156 patients with primitive nephrotic syndrome were surveyed. Anatomoclinical, therapeutic and evolutionary data of the primitive nephrotic syndrome were analysed.

Results : The hospital prevalence was 77%. The average age was 26 years with a sex ratio of 2,4 . The oedema was found in 63% of patients. The hypertension was found in 63% of cases. The mean proteinuria was 6,8g/day. Focal segmental glomerulosclerosis was found in 45,6 %, Minimal change disease in 43,4% and the Extramembranous glomerulonephritis in 5% of cases. 134 patients had received corticosteroid therapy. The cyclophosphamide was used in 7,9 % of cases and Azathioprine in 2,9% of cases. Progress towards was noted for 28,21 % of patients. Poor prognosis factors were: age from 40 years old, proteinuria from 10g/day, renal failure and non-use of corticosteroids.

Conclusion : The primitive nephrotic syndrome is the most common form of hereditary glomerulopathies. It mostly occurs among young patients and ends in chronic renal failure without treatment. Hence the need for effective and early care.

0067

THE HERBAL TOXINS ASSOCIATED NEPHROPATHY IN SENEGAL

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Background: The pathological and etiological patterns of herbal toxins associated nephropathy (HTAN) are not well known in Africa. This study aimed to describe histological findings and causes of HTAN in Senegalese patients.

Methods: We conducted a retrospective study between January 1st 2010 and August 31st 2012 at University hospital Aristide Le Dantec in Dakar. We included all patients with kidney diseases who reported use of traditional plants and for whom renal biopsy was performed. Anamnesis, clinical, biochemical, histological data were collected.

Results: Among the 312 patients who had renal histology during the study period, 74 presented lesions probably due to herbal toxins (prevalence of 19.7%). Their mean age was 34.7 years (5 – 67 years) and sex-ratio was 3.1. only 20.7% of them had previous history of nephropathy. Clinical presentation was dominated by oedema (78.0%) and high blood pressure (69.8%). Glomerular filtration rate was < 15 ml/mn/1.73 m² in 1/3 of the 39 patients for whom serum creatinine was available. Main histological findings were glomerular lesions such as thrombopathy micro-angiopathy, thickening of the Bowman's capsule and presence of spumous cells in capillaries. Tubulo-interstitial and vascular lesions were also found respectively in 55,4 % and 23 % of patients. Overall 21 medicinal herbs belonging to 14 families were mentioned by patients. The most frequently reported plants: *Guiera senegalensis*, *Ziziphus mauritiana*, *Combretum micranthum*.

Conclusion: This study shows a high prevalence of HTAN

in Senegalese patients. Many species had been reported in others studies.

0068

SLEEP DISORDERS AMONG BLACK AFRICAN CHRONIC DIALYSIS PATIENTS: A PILOT STUDY FROM SENEGAL

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Aims: Chronic dialysis patients are highly exposed to diverse sleep disorders (SD) that can impact their daily quality of life. This study aimed to describe prevalence and risk factors of four major SD in Senegalese dialysis patients.

Methods: We performed a cross-sectional study between February 15th and April 30th 2012 in three dialysis centres including 127 patients dialysed since >6 months. For each patient, we assessed insomnia according to the Ohayon method, obstructive sleep apnea syndrome (OSAS) with the Berlin questionnaire, restless leg syndrome (RLS) using abridged version of Cambridge-Hopkins RLS questionnaire, and excessive daytime sleepiness (EDS) with Epworth sleepiness scale. Logistic multivariate regression was used to identify factors associated with different SD.

Results: The overall prevalence of SD was 88% with predominance of insomnia (64%) followed by OSAS (49.6%), RLS (24.4%) and EDS (20.5%). Forty-two patients presented at least two disorders. Patients with insomnia presented lower BMI than patients without insomnia (respectively 20.7 vs 28.3 kg/m², p=0.02) and lower albuminemia (respectively 3.0 vs 3.7g/dL). Insomnia correlated with anemia (OR=1.31, P= 0.03), C-reactive protein (OR=1.29, p= 0.05), and RLS (OR=1.02, p= 0.02). OSAS was associated with snoring (OR=2.41, p= 0.01) and neck circumference (OR=1.27, p= 0.01). RLS correlated with insomnia (OR=1.44, p=0.03), anemia (OR=3.32, p= 0.05). The only factor associated with EDS was OSAS (OR=1.15, p= 0.01).

Conclusions: Nephrologist should be more aware of these SD in order to detect them early and provide efficient treatment.

0069

INCIDENCE OF NON TUMOR KIDNEY DISEASES IN CHILDREN (A MULTICENTER SURVEY IN A PEDIATRIC HOSPITAL IN DAKAR)

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Introduction The non tumor Kidney diseases in children are hereditary, congenital or acquired. The main purpose of our study was to assess the frequency, difficulties of

diagnosis and Support of the care

Materials And Methods We conducted a retrospective multicenter study in period from 1 January 2010 to 31 December 2010. Patients hospitalized for non-tumor kidney disease were included.

Results We have recenced 85 patients on 6964 hospitalized, 1.2 % with a 2.14 ratio. Children aged 5 to 10 years accounted for 42.4 % of the sample.

The Pathologies Encountered Were: Acute glomerulonephritis in 27 patients, nephrotic syndrome child in 25 cases, urinary tract infection in 22 cases, the single renal cyst and nephrolithiasis in 1 case, acute renal failure in 19 children with chronic renal failure in 8 patients. The death rate in the CKD was 62.5 %.

Discussion The predominance of glomerular pathology was described in our study, as in the literature. Prevention and first management of this causes could reduce the incidence of chronic kidney disease.

Conclusion The opening of a pediatric nephrology unit is the key of management in renal disease in our teaching hospital .

0071

LUPUS NEPHRITIS CLASS IV OF ISN/RPS IN A GIRL AGED 15 YEARS IN PEDIATRY OF TEACHING HOSPITAL ARISTIDE LE DANTEC

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Introduction We report a case lupus nephritis class IV of WHO in a girl of 15 years.

Observation He is a 15 year old girl, hospitalized for discoid lesions of the scalp, with red hair and alopecia , erythema and cheekbones vesperilio in area exposed to sunlight, stains hyperchromic thorax and abdomen, purpuric spots of palms; infiltration syndrome (oedema, ascites) polyarthralgia knee and hip, a inflammatory micropolyadenopathy localised cervical and axillary, anemic, retard pubertal P1S1; cachexia. In biology, the NFS show a normocytic anemia, VS: 120 H 1 , CRP :6 mg / l, proteinuria of 24 hours: 93.9 mg/kg/24h, serum protein 42 g / l, albumin: 23 g / l, normal renal balance. Anti Sm Ab was positive. Histology showed glomerular lesion class IV of WHO, global diffuse proliferative, with complete activity and discreet tubulointerstitial lesion . The IF was not was made. Treatment based relay with bolus corticosteroids oral bolus of endoxan and hydroxychloroquine. The short-term outlook was favorable.

Discussion Our observation exposed the difficulty in management of the several NL children.

Conclusion We report our first case of lupus nephritis in children has evolved under treatment.

0075

FUTILITY OF SCREENING FOR HYPERTENSION AND URINARY ABNORMALITIES IN YOUNG NIGERIAN GRADUATES

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Background The National Youth Service Corps (NYSC) statutorily obliges Nigerian graduates of tertiary institutions below 30 years to work for one year outside their geo-ethnic origins, allowing their periodic gathering at orientation camps. These 'youth corpers' occasionally manifest hypertension, kidney disease and diabetes on routine screening. Therefore, a survey was conducted to determine effectiveness of screening in this population for kidney disease and hypertension, to facilitate early intervention.

Methodology Over three weeks, young Nigerian graduates of tertiary institutions at 2008 Kaduna NYSC orientation camp were evaluated for evidence of kidney disease. Demographic profiles, medical history and blood pressures were recorded, followed by random dipstick urine test for albumin, sugar, blood, and nitrite. SPSS version 16 was used for the analysis.

Results 201 out of 1200 graduates participated in the screening. M: F = 110:91; age ranged from 22-41 +3.5 years. Ethnic origins: Hausa 20 (10%), Yoruba 41(20.4%), Ibo 64 (64%) other ethnic tribes 76 (37.8%). Personal history of hypertension, diabetes or kidney disease was negative. Parental hypertension, diabetes and kidney disease occurred in 38%, 68.2% and 5% respectively. SPB 80-150, mean 97+12 mm Hg, DBP 50-100, mean 63+9 mm Hg. BP >140/90 mm Hg present in only 2(0.9%). Dipstick proteinuria, in only 10%; haematuria in 3%, nitrite test in 1.5%. None had glycosuria.

Conclusions Hypertension and urinary abnormalities are rare in this young literate population and may not be cost-effective tools for kidney disease screening. The seemingly high prevalence of parental hypertension and diabetes has been validated in several studies.

0077

PATTERN OF GLOMERULAR DISEASE IN ADULT PATIENTS IN GHANA

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Background : Glomerulonephritis has been reported as a major cause of end-stage renal disease in tropical Africa but there is little recent information about the types of glomerular disease seen there.

Methods: A retrospective review of 121 native renal biopsies performed on patients in Korle-Bu Teaching Hospital Nephrology Unit in Ghana from January 2009 to August 2012. All biopsies were studied by light and immunoperoxidase microscopy.

Results: The mean age of the patients (n=121) was 30.0 ±12.4. There were 62 males and 59 females. 13 out of the 121 biopsy specimen were inadequate. Out of the 108 specimen analyzed, 36 (33%) had Focal segmental glomerulosclerosis (FSGS), 19 (17.5%) had lupus nephritis, 10 (9%) had Membranous nephropathy. Minimal change disease was found in 10 (9%) of the patients, 6 (5.5%) had a Membranoproliferative glomerulonephritis, 5 (5 %) had a Tubulointerstitial nephritis and 4 (4%) had vasculitis. The remaining 18 (17%) included Diabetic nephropathy, Amyloidosis and IgA nephropathy Sixty seven (55%) of the

121 patients had a nephrotic syndrome. Of these, 29 (43%) had FSGS, 10 (15%) had Minimal change glomerulonephritis, 8 (12%) had membranous nephropathy, 5 (7.5%) had lupus nephritis, 2 (3%) had Membranoproliferative glomerulonephritis and 13 (19.5%) had other diagnoses including Amyloidosis, and Diabetic nephropathy.

Conclusion: The most prevalent cause of glomerular disease in the adult Ghanaian with nephrotic syndrome is FSGS. Systemic lupus Erythematosus with lupus nephritis is also common.

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