

NANCONF 2013, Abuja BOOK OF ABSTRACTS

THEME: HYPERTENSION AND CKD1. **ABS/2013/HTN-CKD-01**

TITLE: PREVALENCE OF CHRONIC KIDNEY DISEASE IN TYPE 2 DIABETIC PATIENTS ATTENDING UNIVERSITY OF BENIN TEACHING HOSPITAL.

AUTHORS: IYAWO IO, ADEJUMO OA, OLOKOR AB, OKAKA EI, UNUIGBE EI, OJOGWU LI

BACKGROUND: Diabetes mellitus is a common cause of CKD worldwide and its prevalence is on the increase in Nigeria due to adoption of westernized life style. Early detection and institution of appropriate treatment will slow down the progression to end-stage renal disease; hence these should be the priorities of physicians taking care of these patients. This study was carried out to determine the prevalence of CKD and its associated factors in type 2 diabetic patients at the University of Benin Teaching Hospital (UBTH).

METHODOLOGY: This was a descriptive cross-sectional study in which 144 consenting type 2 diabetic patients were recruited over a period of 16 weeks. Weight(kg), height(m) and hip circumference(cm) were measured and body mass index was calculated.

Fasting blood glucose (FBG) and blood pressure (BP) were assessed during 3 consecutive clinic attendances and their mean values calculated. Venous blood was taken for estimation of fasting serum lipid profile and serum creatinine.

Estimated GFR was calculated using the MDRD formula. Poor glycaemic and blood pressure control were defined as FBS >130mg/dl and BP >130/80mmHg respectively.

CKD was defined as the presence of persistent proteinuria on dipstick for ≥ 3 months and/or GFR < 60mls/min.

The data were analysed using SPSS version 16.

RESULTS: A total of 144 (53 males and 91 females) type 2 diabetic patients were screened. The mean age of the study population was 57.49 \pm 11.49 years. The prevalence of CKD was 30.6% and of these 18 patients had CKD stage 1 (40.9%), 17 had CKD stage 2 (38.6%), 4(9.1%), 3(6.8%) and 2(4.5%) had CKD stages 3, 4 and 5 respectively. The mean age of those with and without CKD were 59.05 \pm 10.6 years and 56.81 \pm 11.83 years respectively. There was no statistical difference in the age distribution of those with and without CKD (p value = 0.27). There were 27 females (61.4%) and 17 males (38.6%) who had CKD.

There was statistical significance in the systolic BP, duration of diabetes and serum triglyceride between those who had and those without CKD with p values of 0.04, 0.03 and 0.03 respectively. However, there was no difference in the average fasting blood glucose of both CKD and non-CKD groups.

CONCLUSION: CKD is prevalent in type 2 diabetics. Systolic blood pressure, duration of diabetes mellitus and serum

triglyceride were significantly higher in diabetics with CKD.

2. ABS/2013/HTN-CKD-02

Title: RENAL AND PATIENTS' SURVIVAL IN HYPERTENSIVE CHRONIC KIDNEY DISEASE CHILDREN

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ABSTRACT

Hypertension prevalence and impact on renal and patients' survival were retrospectively determined in chronic kidney disease (CKD) children.

The median age was 10.0 (0.2-15.5) years. 77 of 154 (50.0%) were hypertensive with 23 (30%) and 54 (70.0%) having stages I ($123.0 \pm 12.5/82.4 \pm 10.6$ mmHg) and II hypertension ($161.0 \pm 32.3/111.0 \pm 23.0$ mmHg), respectively. 70.0% of the patients received two or more anti-hypertensives for satisfactory blood pressure (BP) control. BP control was good, fair and poor in 43 (56.0%), 18 (23.4%), and 16 (20.6%) patients, respectively. Post-treatment BP in hypertensives with good control was similar to normotensives', $p=0.541$. One/5 years renal survivals in normotensives (97.0/80.0%) were similar to hypertensives with good BP control (96.2/63.0%, $p=0.362$). Normotensives, however, demonstrated significantly better one/five

years renal survival (97.0/80.0%) than patients with fair (75.0/25.0%, $p=0.014$) and poor BP control (50.0/0.00%, $p=0.003$). By Kaplan-Meier pairwise comparisons and the log-rank test, patients with good BP control survived (66.7%) better than patients with either fair (24.1%; $p=0.002$) or poor (0.0%; $p=0.000$) control. Hypertensives with good BP control (66.7%) and normotensives (90.4%) survived similarly, $p=0.198$. Normotensives survived (90.4%) better than patients with either stage I (46.8%, $p=0.014$) or II (49.3%, $p=0.000$) hypertension. Stages I and II hypertension survived similarly ($p=0.353$). Cumulative mortality was significantly higher in hypertensive (62.4%) than non-hypertensive (9.5%) CKDs [Hazard ratio: 0.54, 95% CI: 0.35-0.83, $p=0.005$].

In childhood CKD, hypertension is a highly prevalent comorbidity and a significant risk factor for renal disease progression and mortality.

3. ABS/2013/HTN-CKD-03

Title: 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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Abstract:

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 who satisfied the inclusion criteria were recruited after an informed consent. Their socio-demographic characteristics was determined and detailed history and clinical examination performed. Baseline serum chemistry, complete blood count and renal ultrasonography were determined. They were given Telmisartan (40 - 80 mg) daily and patients monitored fortnightly. Biochemical parameters were assessed at 6 weeks and after 12 weeks. They were then repeated after 6 months of stopping Telmisartan therapy. The result was analysed using SPSS package version 16.

Results: Thirty nine (97.5%) completed the study, 25 females and 14 males, 37 patients had SS Hb genotype while only 2 had HbSC. The ages ranged between 18 and 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 without compromising blood pressure.

4. **ABS/2013/HTN-CKD-04**

TITLE: CARDIOVASCULAR RISK PROFILE IN CKD PATIENTS AT NATIONAL HOSPITAL ABUJA NIGERIA

Authors: Hussain Haruna, E. A. Anteyi, M.A Araoye, T. Uwaezuoke

ABSTRACT

INTRODUCTION AND OBJECTIVE:

Cardiovascular disease (CVD) remains the leading cause of morbidity and mortality in patients with CKD. There is accumulating evidence that the increase in CVD burden is present in

patients prior to dialysis, due to both conventional risk factors as well as those specific to kidney disease.

The cardiovascular risk factor detection and control is of paramount importance in improving quality of living; and reducing morbidity/mortality in CKD patients.^{1,2,9} Hence this study attempted to determine the prevalence of the traditional cardiovascular risk factors in stage 3 – 5 CKD.

METHODS: A hospital based case control study of 149 CKD patients in stages 3 – 5 (73 stage 3 & 4 and 76 dialysis) compared with age and sex-matched 71 controls that had normal eGFR from patients attending the National Hospital Abuja (NHA) Nigeria, evaluating CVD risk factors such as advanced age, male sex, smoking, sedentary life style, hypertension, diabetes mellitus, Insulin resistance/ obesity, dyslipidemia.

RESULTS: Data was collected from all of 220 studied subjects, 149 CKD patients in stages 3 – 5 (73 stage 3 & 4 and 76 dialysis) compared with age and sex-matched 71 controls. The data was checked for wrong entries and inconsistencies. It was then transferred to Epi-info 2005 version.

5. ABS/2013/HTN-CKD-05

TITLE: PREVALENCE OF PERIPHERAL ARTERY DISEASE IN CKD PATIENTS.

Authors: Hussain Haruna, E.A. Anteyi, M. A. Araoye, T. Uwezuo

INTRODUCTION AND OBJECTIVE: PAD is very common in the CKD patients with prevalence rates of 24 to 37%. Both CKD and PAD share the same cardiovascular risk factors and are clinical manifestations of diffuse atherosclerosis. ABI cutoff of <0.9 not only has been shown to be a good screening tool for PAD (90% sensitivity and 98% specificity) but is also associated with increased cardiovascular and all-cause mortality

METHODS: A hospital based case control study of CKD patients in stages 3 – 5 (73 predialysis and 76 dialysis) compared with age and sex-matched 71 controls that had normal eGFR from patients attending the National Hospital Abuja (NHA) Nigeria, evaluating **Ankle Brachial Index (ABI)** This was determined by calculating the ratio of the highest systolic blood pressure (SBP) in the posterior tibial and dorsalis pedis arteries to the highest SBP of the brachial arteries. Of the two ABI measurements for each patient, the lower ABI was selected. ABI less than 0.9 are reduced.

RESULTS: Data was collected from all of 220 studied subjects, 149 patients were CKD patients and 71 were controls. The data was checked for wrong entries and inconsistencies. It was then transferred to Epi-info 2005 version¹³⁹ and rechecked, before it was analyzed.

The controls had 4% prevalence of peripheral artery disease despite their advanced age, stage 3&4 CKD had 56.9% prevalence while stage 5 hemodialysis dependent had 66% with $p = 0.000$.

THEME: ACUTE KIDNEY INJURY AND TOXIC

NEPHROPATHIES/DIALYSIS AND KIDNEY TRANSPLANTATION

1. ABS/2013/AKI-DIAL-TRANS-01

TITLE: OUTCOME OF RENAL FUNCTION AFTER HAEMODIALYSIS IN WOMEN WITH POSTPARTUM RENAL FAILURE AT AHMADU BELLO UNIVERSITY TEACHING HOSPITAL

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BACKGROUND: Post partum renal failure is an important but often unrecognized complication occurring after pregnancy or delivery. Most patients reportedly die and few have the opportunity to be dialyzed. The aim of this study was to review the renal status of patients dialyzed after developing post postpartum acute kidney injury (AKI).

METHOD: Retrospective audit of dialysis done at the Dialysis unit of Ahmadu Bello University Teaching Hospital, Zaria.

RESULTS: Eight women aged 18 to 35 years were referred for haemodialysis over a 7 year period (2006 to 2012). All except one came from other hospitals. Causes of renal failure were eclampsia 3(37.5%), Sepsis 3(37.5%), postpartum haemorrhage 1(12.5%), and uncontrolled diabetes with hypertension 1(12.5%). Four patients

(50%) had severe haemorrhage. The commonest presenting complaint was oliguria of 1 to 10 days duration. Five patients had multiorgan dysfunction. The patients received a total of 31 dialysis sessions (ranging from 2 to 8 per patient). Two patients developed hypotension, one restlessness and one died during dialysis. Three patients (37.5%), were unable to continue dialysis due to financial problems. Post dialysis, 4(50%) patients developed Chronic Kidney disease and 1(12.5%) sustained hypertension. The rest were lost to follow up.

CONCLUSION: AKI following postpartum renal failure can have serious long term consequences on renal function. Efforts should be made to prevent development of AKI through improved antenatal care. Further urine output should be routinely monitored in women after delivery and those with sustained oliguria referred early for possible dialysis.

2. ABS/2013/AKI-DIAL-TRANS-02

TITLE: FACTORS ASSOCIATED WITH INTRADIALYSIS DEATHS: FIVE YEAR RETROSPECTIVE STUDY OF RENAL FAILURE PATIENTS IN UDUTH SOKOTO.

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Introduction The incidence of endstage renal disease requiring renal replacement therapy is rising globally. This is associated with the increasing prevalence of non-communicable diseases globally. Intermittent haemodialysis as a form of Renal replacement therapy remains one of the viable options in the management of patients with both Acute kidney injury and chronic kidney disease. However, like all other therapeutic interventions, it has potential complications. We therefore reviewed the clinical parameters of our patients who died within the premises of our dialysis centre over a five year period to assess the factors that may have contributed to intradialysis deaths. This may offer potential therapeutic interventions to future patients that may reduce the risk of intradialysis deaths.

Methods This is a retrospective study. We reviewed the medical records of all our 487 patients who had haemodialysis between 1st July 2007 to 30th June 2012. Information retrieved from all folders include Age, gender, occupation, type of renal failure, cause of renal disease, number of days from diagnosis to first dialysis, number of dialysis sessions ever received, inpatient status at time of last dialysis, day and time of death, level of consciousness at last dialysis, last predialysis systolic and Diastolic Blood pressures, Packed cell volume and Serum Potassium prior to last dialysis, time on haemodialysis machine prior to death and outcome of dialysis. The data obtained was analyzed using IBM SPSS Version 20.

Numerical data were reported as mean+SD. Comparison of means of continuous variables was done using student t-test. Chi square was used for comparing proportions. P value <0.05 was considered significant.

Results A Total of 33 patients died within the premises of our dialysis centre during the 5 year period. Their mean age was 47.8±20.59 standard deviation (range 20-85 years). There were 28(84.8%) Males and 5 Females (15.2%). Indication for dialysis was for CKD in 51.5%, Acute on Chronic Kidney Disease in 30.3% and AKI in 18.2% of the patients. 23 patients (69.7%) died during dialysis, while 9(27.3%) died prior to commencement of dialysis and one(3%) died immediately after dialysis. The mean number of haemodialysis sessions ever received was 5.27±8.85 SD (range 0 to 40 sessions). These and other clinical parameters were compared with the clinical data of 33 randomly selected patients who did not die within the premises of the dialysis centre.

Conclusion Presence of pulmonary oedema, impaired level of consciousness, advanced age and patients having their first session of haemodialysis are associated with high risk of intradialysis mortality. Strategies aimed at reducing these factors will go a long way in reducing intradialysis deaths.

3. ABS/2013/AKI-DIAL-TRANS-03

TITLE: ENCAPSULATING PERITONEAL SCLEROSIS IN A SOUTH AFRICAN PERITONEAL DIALYSIS PATIENT- A CASE REPORT

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Background: Encapsulating Peritoneal Fibrosis (EPS) is a rare but serious complication of peritoneal dialysis. It is characterized by dense fibrosis and thickening of the peritoneum with bowel adhesion and encapsulation. We report a South African male peritoneal dialysis patient who developed EPS.

Case Report: B.S is a 53 year old male patient with End Stage Renal Disease from Malignant Hypertension. He was commenced on Continuous Ambulatory Peritoneal Dialysis for 7 years but was switched to Hemodialysis due to multiple episodes of peritonitis. He presented initially with vague abdominal pain and distension which subsequently became associated with vomiting and constipation. Physical examination of the abdomen revealed an ill defined mass around the epigastric and umbilical regions. Plain abdominal X ray revealed multiple air fluid level with some fecal loading while his abdominal CT scan showed loculated and non loculated ascites, thick ring enhancing parietal peritoneum with multiple adhesions. Treatment consisted of Tamoxifen and prednisolone in addition to nasogastric drainage of stomach contents, total perenteral nutrition and intravenous fluids. His condition gradually improved with resolution of the intestinal obstruction and was discharged to continue maintenance hemodialysis.

Conclusion: EPS although rare can occur in peritoneal dialysis patients and efforts should be made to address factors known to be associated with it.

4. ABS/2013/AKI-DIAL-TRANS-04

TITLE: PREVALENCE AND TYPES OF INTRA-DIALYTIC COMPLICATIONS IN PATIENTS DIALYSING AT THE UNIVERSITY OF BENIN TEACHING HOSPITAL.

AUTHORS: Adejumo OA, Olorok AB, Iyawe IO, Okaka EI, Unuigbo EI, Ojogwu LI

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BACKGROUND : Despite the improvement in the safety of dialysis over the years, complications are still encountered. These complications reduce the quality of life and are associated with increased mortality and morbidity.

OBJECTIVES: To determine the prevalence and types of intra-dialytic complications in UBTH renal unit.

METHODOLOGY: This is a descriptive retrospective study in which records of patients who had hemodialysis (HD) over a one year period were reviewed. The socio-demographic information, aetiology of renal disease, number of HD sessions, blood pressure readings during HD and

recorded complications were obtained. The data was analysed using SPSS version 16.

RESULT: 861 sessions of HD in 167 patients (99 males, 68 females) were reviewed. 144 (86.2%) had ESRD while 23 (13.2%) had AKI. Hypertension, CGN, DM were the commonest causes of ESRD accounting for 27%, 26.3% and 12% respectively. The mean age of males and females were 48.77 ± 15.39 years and 40.75 ± 15.29 years respectively; this difference was statistically significant ($p = 0.001$). The mean HD sessions was 5.16 ± 9.17 . The common complications encountered were hypertension (28.9%), hypotension (10.9%), seizures (3.0%), disequilibrium syndrome (2.9%), vomiting (2.2%), cramps (2.1%). Others were fever, chest pain, back pain, bleeding from vascular access, headache and hypoglycaemia which accounted for < 2% each.

CONCLUSION: Intra-dialytic hypertension and hypotension were the commonest complications encountered.

TEACHING HOSPITAL (2004 – 2011)

Okaka EI, Adejumo OA, Olokor AB, Iyawe OI, Unuigbo EI, and Ojogwu LI

ABSTRACT

Introduction Haemodialysis is the most available modality of renal replacement therapy in Nigeria today and is indicated in the treatment of patients with acute kidney injury, end stage renal disease and acute exacerbation of chronic kidney disease.

Objective: To review all new admissions into our dialysis facility from January 1st 2004 to December 31st 2011 and to observe any trend in presentation of the patients over the period under review.

Methodology: The dialysis records of the facility were reviewed, patient demographic characteristics and diagnoses obtained. Analysis was done using SPSS version 17.

Results: A total of 1,278 patients were admitted to have haemodialysis during period under review. There were 778 males (60.9%) and 500 females (39.1%) with 45.4% and 11.5% of patients being below 40 years and greater than 65 years of age respectively. Majority had CKD (81.1%) with chronic glomerulonephritis, hypertensive nephropathy and diabetic nephropathy diagnosed in 374 (29.3%), 245 (19.2%) and 133 (10.4%) of cases respectively. Patients admitted for AKI were 241 (18.9%) with severe sepsis, pre-renal causes, acute glomerulonephritis and eclampsia being responsible for 31.5%, 17.4%, 10.7% and 6.2% respectively. Number of dialysis cases due to CGN peaked in 2007 but has been stable over the past 3 years.

5. ABS/2013/AKI-DIAL-TRANS-05

TITLE: A REVIEW OF DIALYSIS-TREATED PATIENTS AT THE UNIVERSITY OF BENIN

Conclusion: Chronic glomerulonephritis was commonest diagnosis among patients requiring dialysis; there was a preponderance of males and patients aged less than 40years dialysed during the review period.

6. ABS/2013/AKI-DIAL-TRANS-06

TITLE: MISSING GUIDE WIRE DURING FEMORAL VEIN CANNULATION: A CASE REPORT. Jinadu Y, Uloko R, Salako BL, Arije A, Kadiri S,

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Introduction: All routes of central venous access are associated with complications and possible failure. One of the most common methods to gain central venous access in emergent situation is via femoral vein catheterization. The technique of accurately placing a femoral vein catheter depends on appropriate patient selection and a sound knowledge of anatomy. The modified Seldinger technique is used initially described in 1953.

Femoral site is advantageous in patient who are critically ill because the femoral area is relatively free of other monitoring and airway devices, if bedridden patient require central venous access, the femoral site allows for relatively free movement of arms and neck without impeding the access line and risk of developing a haemothorax or pneumothorax both potential complication of supraclavicular venous access.

Femoral venous cannulations are generally associated with less severe complication largely because the risk of traumatizing

intrathoracic structures is avoided. The following complications are commonly associated with femoral venipuncture; Arterial puncture, Pseudo aneurysm formation, Haematoma formation, Bowel penetration more likely in patients with femoral hernias, Bladder puncture more likely to occur with a distended bladder, In addition to the common complications with femoral vein catheterization there are some rare usually preventable side effects related to guide wire and catheter. A case of migration of guide wire through the systemic circulation from the femoral vein to the jugular vein has been previously reported in Tehran.

CASE REPORT

We report here the case of a 70 year old male, retired police officer diagnosed with type 2 diabetes mellitus and hypertension 7 years before presentation but who was been treated for kidney failure due to diabetic nephropathy. While attempting femoral catheterization on the 29/11/12, the guide wire accidentally got dislodged and disappeared completely into the left femoral vein.

The guide wire was successfully removed via surgery by our vascular/cardiothoracic unit. Although this complication is rare, care should be taken during femoral cannulation in order to reduce morbidity and mortality among end stage kidney failure patients.

THEME: DIALYSIS AND TRANSPLANTATION

1. ABS/2013/DIAL-TRANS-01

TITLE: HLA (DNA) TYPING USING SEQUENCE SPECIFIC PRIMER **TECHNIQUE:** PRELIMINARY REPORT FROM A UNIVERSITY TEACHING HOSPITAL, ILE-IFE, NIGERIA.

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Abstract

Background Human Leukocyte Antigen (HLA) polymorphism determination is very important for transplantation procedures. As part of her kidney transplantation programme, the Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC), Ile-Ife, south west Nigeria acquired equipments for the HLA (molecular DNA) typing of recipients and donors of kidneys in organ replacement programme. Before now, this is done in South Africa and/or Europe. In this communication, we attempt to present our experience and a preliminary report of our results over a 12 month-period.

Patients and Methods From December 2011 to December 2012, we prospectively determined the HLA types of 20 individuals referred to the tissue typing laboratory of OAUTHC, Ile-Ife. DNA was extracted from the patient's peripheral blood sample, using the QIAmp Blood DNA Mini kit, (Qiagen). PCR was done using Olerup® low-resolution PCR-SSP typing kit. Electrophoresis of the PCR product was done in 2% agarose gels, and the bands visualized under UV light. HLA types were reported using provided tables

and/or Helmberg software. Data were presented using inferential statistics while HLA frequencies were expressed in percentages.

Results A total of 20 individuals (13M and 7F) consisting of 7 renal transplant recipients and their 7 prospective donors; a stem cell recipient and 3 donors and a migrant pair for kinship determination were typed. Age ranged from 4-65 years. 44 HLA alleles were detected, while HLA A, B, C, DRB1 and DQB1 were 7, 10, 11, 8, 8 alleles respectively. The alleles were heterogeneous in distribution while 6 antigens were in high frequency ($\geq 25\%$).

Conclusion Renal transplant procedure is the major indication for HLA (DNA) typing in our setting; this is feasible in Nigeria including both low and high resolution typing. The HLA antigens with high frequency ($\geq 25\%$ frequency) observed commonly in our population are HLA A02*, B30*, C15*, DRB103*, DRB108* and DQB106*.

2. ABS/2013/DIAL-TRANS-02

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

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Background and Aims: Kidney transplantation is globally accepted as the best treatment for patients with end stage kidney disease. It offers better quality of life and cost savings compare with dialysis. Apart from South Africa perhaps, kidney transplantation in sub-Saharan Africa (SSA) is still at developmental stage. In Nigeria with 160million population and endstage kidney disease burden of 10% of hospital admissions, 161 cases have so far been performed [from 7centres in the country] with 75% of this done at the pioneering private hospital which started twelve years ago. The limited growth of transplantation program in SSA is intricately connected with the myriad of socio-economic, cultural, political and infrastructural problems. 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 28year old junior employee of a private construction company who had ESKD from chronic glomerulonephritis and had been on dialysis and erythropoietin for a year. His donor is his elder brother, a 30years old teacher. He had a fistula created by our vascular surgeons which he used for the dialysis. Majority of the pre-transplant laboratory tests (Kidney function, Liver function, cardiac function, thyroid function, biochemical, hematological, viral, serological and radiological tests) were done in our hospital with exception of the Renal angiography (done in Lagos), HLA typing, CMV and EBV serology (done in South Africa through Lagos). Overall, the results were satisfactory with

50% HLA match. **Results:** The surgery was done on the 10th of September, 2012. He had delayed graft function due to AKI while the doppler scan consistently showed good graft perfusion and eventually started to function after 20days. The patient was maintained on Mycophenolate

mofetil/Tacrolimus/Prednisolone regimen. The tacrolimus level was assayed at a South African Laboratory through a facilitating centre in the country. He had severe fungal UTI and sepsis which was managed. He made considerable clinical progress with the serum urea, creatinine and haemoglobin attaining normal values and was discharged. The donor also was discharged and both are on follow up. The treatment was by his employer and UITH management.

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.

3. ABS/2013/DIAL-TRANS-03

TITLE: EFFICACY OF WATER TREATMENT FOR HAEMODIALYSIS IN SOUTH EAST NIGERIA

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ABSTRACT

Introduction. Current guidelines by Association for Advancement for Medical Instrumentation (AAMI) recommend minimum standard of purity for water use in haemodialysis. Impure water used for haemodialysis has been associated with morbidity and mortality in dialysis patients. It is not known if local haemodialysis centres in South east Nigeria are complying with the recommendations. This study assessed the pretreatment and post treatment water used for haemodialysis in 8 haemodialysis in 6 towns in South east Nigeria

Methods Water samples were collected from pretreatment and post treatment points in the dialysis circuit. The samples were tested for aluminium, calcium, magnesium, potassium, sodium, chloramines, nitrate and free chlorine. Water samples were cultured in tryptone glucose extra agar at 37^oc for 48hours. Endotoxin analysis was done using limulus Amaeocyte assay.

Results The mean concentration of sulphate, calcium, chloramines, aluminium and nitrate in pretreatment water exceeded the AAMI recommendation while the mean concentration of sodium, potassium, magnesium and fluoride were within the AAMI recommendation. After treatment, the concentration of chloramines and aluminium reduced to within AAMI recommendation. The mean concentration of other elements investigated after treatment were within normal AAMI recommendation. The mean total coliform count and concentration of endotoxin level in both pre-treated and post-treated water in all haemodialysis centres were within the recommended AMMI levels.

Conclusion This study has shown that water used for haemodialysis centres in South Nigeria meets the AAMI recommendations to a great extent. Water used for dialysis in haemodialysis centres in South east Nigeria is reasonably safe.

4. ABS/2013/DIAL-TRANS-04

TITLE: PERCEPTION AND PRACTICE OF DOCTORS TOWARD KIDNEY DONATION AND TRANSPLANTATION IN UBTH

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Background: Therapeutic strategies for patients with ESRD are dialysis and kidney transplantation. Haemodialysis is more readily available for Nigerian patients but cannot be sustained by most because it is expensive. Thus HD is sub-optimal with resultant poor quality of life (QOL) and death. Kidney transplantation although also expensive, offers better QOL. However a major drawback for kidney transplantation is unavailability of kidney donors. Poor knowledge about kidney donation in itself may partly be responsible for low donation rates and well informed doctor can better educate potential kidney donors and recipients on kidney transplantation. This survey was carried out to assess knowledge and

attitude of doctors in UBTH to kidney donation and transplantation.

Methods: 150 self-administered questionnaires were distributed to physicians, surgeons and family physicians in UBTH. Response rate was 75%. Data was analysed using SPSS version 16.

Results: There were 76 (67.9%) males and 36 (32.1%) females with age range 24 – 55 years; 42 (37.5%) physicians, 43 (38.4%) surgeons and 27 (24.1%) family physicians. 110 (98.2%) had heard of kidney donation, 2(1.8%) had never heard. Of those that had heard 50 (44.6%) had good knowledge of the term kidney donation, 32 (28.6%) had fair knowledge and 23 (20.5%) had poor knowledge. 69(61.6%) would be willing to donate a kidney, most common reason being to save lives. Specialty, designation and religion had no influence on their knowledge and attitude; neither did their knowledge influence their attitude to kidney donation.

Conclusion: Knowledge of kidney donation and transplantation amongst the doctors studied was good but same cannot be said of their attitude; constraints to kidney donation were fear of post-surgical complications and fear of developing kidney disease in future. Education and enlightenment programs are still needed to help improve the knowledge and attitude toward kidney donation.

5. ABS/2013/DIAL-TRANS-05

TITLE: SINGLE CENTER EXPERIENCE WITH INTERNAL TUNNELED CUFFED CATHETER: A PRELIMINARY REPORT

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Introduction: Hemodialysis catheters are integral part of the delivery of hemodialysis and represent a major access source in our practice. Even though catheters play an important role in the patient undergoing hemodialysis, catheters are considered a bridge to more permanent forms of dialysis access in most patients. In the past vascular surgeons were called in to place tunneled central venous catheter (TVC) for hemodialysis patients, however with the advent of per cutaneous increasing number of interventional nephrologists are inserting it.

We present here a preliminary report of assessment of the outcome and complications of internal jugular tunneled cuffed catheter insertions carried out by nephrologists and residents at the Owena dialysis center, University College Hospital, Ibadan.

Methods: Twelve patients who were able to afford the cost of tunneled catheter were recruited for internal jugular tunneled catheter insertion. Procedure was well tolerated in all cases. Catheters were put to use immediately following insertion.

Results: The age range of the participants was 20-99 years. Chronic glomerulonephritis was the commonest cause of CKD among them followed by diabetes nephropathy. Right internal jugular vein was the preferred site in the majority of participants. The main complications were pain, exit site blood ooze, catheter block or thrombosis and kink.

Conclusion: Tunneled central venous catheters could find a niche as the primary access of choice for pre-transplant patients with end stage renal disease in view of its immediate usage and high blood flows.

6. ABS/2013/DIAL-TRANS-06

TITLE: HEMODIALYSIS FOR END STAGE RENAL DISEASE AT THE UNIVERSITY OF ILORIN TEACHING HOSPITAL

AUTHORS: Chijioko A, Olanrewaju TO, Ameh IO, **Ibivemi MPE***, Makusidi AM

Department of Medicine, UITH, Ilorin

Background: Hemodialysis (HD) has sustained life of more than a million end stage renal disease (ESRD) patients worldwide and is the commonest form of renal replacement therapy available in Nigeria. ESRD frequently resulted in unnecessary suffering and premature death of our patients because most can neither afford nor sustain the high cost of therapy. It is unclear if the outcome of these patients has improved in recent times.

Methods: A four year (2008-2012) retrospective appraisal of ESRD patients who underwent HD since the establishment of a dedicated renal care centre at University of Ilorin Teaching Hospital was undertaken. Socio-demographic data were summarized and a comparison made with specific reference to dialysis and patient outcome. Data result analysis utilized SPSS version 16

Results: The male to female ratio was 2.6:1 with mean ages of 46.9 ± 10.3 and 44.0 ± 21.1 years respectively. Chronic glomerulonephritis was the commonest cause of ESRD. A total of 418 sessions were carried out in the period under review with 68.9% performed among males. The median duration of hemodialysis was 4 weeks (range 1-69 weeks) among males and 4 weeks (range 1- 64 weeks) among females respectively; 97.5% of patients paid for all their dialysis sessions out-of-pocket. Only 7.5% of patients could afford three sessions of dialysis weekly while 20.0% of patients dialyzed at irregular intervals whenever money was available. Overall mortality was 55.0% with 58.6% occurring in males. Majority of the dead (40.9%) dialyzed once a week, 22.7% whenever funds were available and none could afford thrice weekly sessions.

Conclusions: The outcome of our ESRD patients on hemodialysis remains poor as they can hardly afford or sustain dialysis due to cost. We strongly advocate preventive nephrology and inclusion of renal subsidy into the current National Health Insurance Scheme of Nigeria.

**THEME: EXPERIMENTAL
NEPHROLOGY**

1. ABS/2013/EXP NEPH-01

TITLE: THERAPEUTIC EFFICACY OF MODIFIED PERITONEO-VENOUS SHUNT IN THE MANAGEMENT OF REFRACTORY ASCITES IN ADULT PATIENTS WITH NEPHROTIC SYNDROME.

AUTHORS: Arogundade FA, Sanusi AA, Akinbodewa AA, Hassan MO, Omotosho BO, Okunola OO, Akinsola A.

ADDRESS: Renal Unit, Department of Medicine, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife.

Abstract:

Background: Refractory oedema is a major cause of morbidity whose management remains a challenge in nephrotic syndrome patients. Administration of parenteral diuretics and salt poor albumin achieve desired effect in only a few patients, and repeated paracentesis results in hypotension, malnutrition, infection and sometimes acute kidney injury. Modified peritoneo-venous shunt may reduce hypoproteinaemia but could also be complicated. We performed intravenous reinfusion of ascitic fluid (modified peritoneo-venous shunt) in twenty-six nephrotic syndrome patients and hereby report the efficacy and safety of the procedure.

Methods: Twenty-six consecutive patients with anasarca and refractory oedema were recruited for this study. A total of 165

sessions of intravenous reinfusion of ascitic fluid (modified peritoneo-venous shunt) was performed after necessary screening. Regression of oedema was assessed using weight reduction, abdominal girth measurement and diuresis. Renal biopsy was subsequently performed to determine histological diagnosis. Data obtained were analyzed using statistical package for social sciences (SPSS) version 16.

Results: There was male preponderance (M: F; 3.3:1). The mean \pm SD age was 26.1 ± 3.8 years while their duration of oedema was 12.1 ± 3.3 months. There was significant weight loss in all of the patients by the end of second week of initiation of intravenous reinfusion of ascitic fluid (modified peritoneo-venous shunt). The mean weight loss, reduction in abdominal girth and increase in serum albumin by the end of 2nd week were 15.1kg, 28.1cm and 1g/L respectively ($p < 0.0001$). The mean increase in urinary output at the end of 2nd week was 665mls ($p < 0.001$). The mean session of IRA per patient was 6.4 ± 1.3 sessions. None of the patients bled from puncture wound site or developed intra-abdominal haemorrhage. No mortality was recorded. The commonest histological diagnosis was focal segmental glomerulosclerosis.

Conclusion: Intravenous reinfusion of ascitic fluid (modified peritoneo-venous shunt) is a safe, useful and effective technique to control refractory oedema in nephrotic syndrome.

2. ABS/2013/EXP NEPH-02

TITLE: CLINICO-PATHOLOGICAL STUDY OF SICKLE CELL NEPHROPATHY IN NIGERIANS.

AUTHORS: Arogundade FA, Sanusi AA, Hassan MO, Omotosho BO, Akinbodewa AA, Akinsola A.

ADDRESS: Renal Unit, Department of Medicine, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife.

Abstract:

Introduction: Sickle cell disease (SCD), a genetically inherited disease, often presents with disabling acute complications which can occasionally be fatal. Improvement in the management of SCD have improved survival into adulthood but is marked by occurrence of end-organ damage including kidney dysfunction. This study determined the relationship between clinical parameters, kidney function, renal histopathology and haematologic parameters.

Methodology: The study prospectively studied 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. Data was analysed using descriptive and inferential statistics in SPSS package (version 16).

Results: The age of the patients ranged between 18 and 56 years (Mean±SD; 27.5±8.9years) with a female preponderance, M: F ratio (1:1.3). Of the 70 patients screened, 25 (35.7%) had CKD as defined by GFR <60ml/min and/or

proteinuria. CKD was common among HbSS (42.1%) than HbSC (7.7%) subjects. 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 ($r=-0.255$; $p=0.04$).

Tubular function was assessed using fractional excretion of sodium (FENa), fractional excretion of potassium (FEK), specific gravity and pH; mean (±SD) of (FENa), (FEK), specific gravity and pH were 6.5 (±2.2), 31.1 (±10.1), 1.0 (±0.01) and 6.3 (±0.5) respectively. All recruited patients had markedly elevated FEK while 98.6% had elevated 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 25 patients with CKD, 23 underwent renal biopsy out of which 22 were successful and the remaining 2 declined. Glomerulosclerosis was demonstrated in 9 (39.1%) of the patients, 6 (69.6%) had matrix expansion while 15 (65.2%) had mesangial hypercellularity. Tubular thickening was found in 7 (30.4%) patients while tubular atrophy was demonstrated in 14 (60.9%) of the patients. Interstitial fibrosis was demonstrated in 14 (60.9%) patients while interstitial cellular infiltration with inflammatory cells was demonstrated in 2 (8.7%) of the patients. Medial arteriolar thickening was seen in 4 (17.4%) patients while intimal fibrosis was found in 7 (30.4%) of the patients.

Pattern of histological diagnosis were mesangioproliferative glomerulonephritis in 11 (50%) patients, 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: CKD is common among SCD patients. It is more prevalent in homozygous SS than heterozygous SC patients. Kidney disease was characterized by a preponderance of tubular dysfunction and mesangioproliferative glomerulonephritis.

3. ABS/2013/EXP NEPH-03

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

AUTHOR: Okoye OC, Odonmeta AB.

AFFILIATION: Delta State University Teaching Hospital, Oghara.

Background: Anaemia is defined as a decrease in circulating red blood cell mass; the usual criteria being 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. Adequate and sustained management of anaemia is known to slow the progression of chronic kidney disease and improve quality of life

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 \leq 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 761.6%. 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.

4. ABS/2013/EXP NEPH-04

TITLE: ESTIMATED GLOMERULAR FILTRATION RATE AT

INITIATION OF HAEMODIALYSIS IN A NIGERIAN TERTIARY CENTRE.

AUTHOR: Okoye OC, Odonmeta AB, Unuigbo E.I

AFFILIATION: Delta State University Teaching Hospital, Oghara.

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.

5. ABS/2013/EXP NEPH-05

Title: PREVALENCE, RISK FACTORS AND HISTOLOGICAL PATTERN OF KIDNEY DISEASE IN PATIENTS WITH HIV/AIDS AT AMINU KANO TEACHING HOSPITAL, KANO, NIGERIA.

AUTHORS: Aminu MS¹, Bappa A¹, Aliyu A¹, Arogundade F²

Affiliations: ¹Aminu Kano Teaching Hospital, Kano, Nigeria. ²Obafemi Awolowo University

Teaching Hospital, Ile-Ife,
Nigeria

Renal disease in HIV/AIDS contributes significantly to the morbidity and mortality associated with HIV infection worldwide. This cross sectional study was aimed at providing data on the prevalence, risk factors and histological pattern of kidney disease in HIV positive patients in Kano, Nigeria.

Methods: Four hundred consecutive HIV positive treatment-naïve adults satisfied the inclusion criteria and were screened for proteinuria and decreased GFR between May 2010 and October 2010. Patients with other condition known to cause kidney disease were excluded. Sociodemographic and clinical features were documented using an interviewer-administered questionnaire. Proteinuria was tested using dipstick and repeated after four weeks if positive, spot urine was used to estimate 24-hour urine protein excretion using protein creatinine ratio. Complete blood count, CD4 cell count, serum urea, electrolytes and creatinine, serum proteins and cholesterol were determined. Twenty patients were biopsied.

Results: The male: female ratio was 1: 1.5 and mean age was 34.03 ± 10.23 years. Renal disease defined by the presence of proteinuria or decreased GFR (<60 ml/min/1.73 m²) or both was found in 227 patients (56.8 %), with 141 (35.3%) and 64 (16%) having proteinuria and low GFR respectively. Prevalence was higher in females 121 (53.3%). Commonest clinical features were anaemia 162 (71.4%) and low BMI 64 (28.2%). Risk factors for kidney disease were low CD4 cell count ($p=0.034$) and anaemia ($p=0.0001$). Collapsing FSGS was found in 11 (55%) while 5 (25%) had interstitial nephritis. One patient had normal histology on light microscopy despite proteinuria of 2.7 g/day suggestive of minimal change

disease. **Conclusions:** The prevalence of renal disease in HIV positive patients is high in Kano, Nigeria. Low CD4 cell count and anaemia were risk factors identified. Collapsing FSGS was the predominant histological type. Routine screening of HIV positive patients for the presence of kidney disease is recommended

6. ABS/2013/EXP NEPH-06

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

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Proteinuria is an excellent marker of poor long term graft survival and an independent risk factor for total and cardiovascular mortality in renal transplant population. It is associated with inflammatory markers, such as C-reactive protein (CRP) and cardiovascular risk factors. The risk of death from all cause and from cardiovascular disease is increased with increasing amounts of proteinuria.

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 (CMJAH) 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. Height, weight and waist circumference of all patients were recorded. Body mass index (BMI) was calculated as weight in kg divided by the square of height in meters. All patients had carotid doppler and echocardiography done using Philips iE33 machine (Philips Corporation USA). Framingham Risk Score was used to categorize patients into low, moderate, high and very high cardiovascular risk groups. Graft dysfunction was defined as estimated GFR based on the modification of diet in renal disease (MDRD) of less than 60 ml/min/1.73m².

Results were analyzed using statistical package for social sciences (SPSS) version 17, p value of 0.05 was considered significant.

Results:

Proteinuria was present in 51 patients (51%), the mean \pm SD 24 hour urinary protein excretion per day was 1.67 ± 2.00 with a range of 0.4 to 9.4 g/day. When proteinuria as a categorical variable was compared across the CVD risk strata, there was a statistically significant difference, $X^2 = 14.687$, $df = 3$ and $p = 0.002$. The table below shows the

correlation of proteinuria with some CV risk variables.

Table 1 Correlation of proteinuria with some clinical variables

Variable	Spearman's correlation	P value
LVMI	0.206	0.04
SBP	0.373	<0.0001
DBP	0.327	0.001
MAP	0.404	<0.0001
Haemoglobin	-0.337	0.001
eGFR	-0.299	0.002
Cumulative steroid dose	0.214	0.032
High cardiovascular risk	0.381	<0.0001

Proteinuria correlated with graft dysfunction, increased left ventricular mass index and anaemia. Graft function had significant positive correlation with physical exercise.

Proteinuria is a marker of graft dysfunction and is associated with high cardiovascular risk in this study.

Strategies aimed at reducing proteinuria including blood pressure control and physical exercises in kidney transplant recipients are recommended.

THEME: PREVENTIVE NEPHROLOGY

1. ABS/2013/PREV NEPH-01

TITLE: SCREENING FOR RISK FACTORS FOR CHRONIC KIDNEY DISEASE (CKD) IN TYPE 2 DIABETIC PATIENTS ATTENDING THE UNIVERSITY OF BENIN TEACHING HOSPITAL.

AUTHORS: Adejumo OA, Olorok AB, Iyawe IO, Okaka EI, Unuigbe EI, Ojogwu LI
Department of Medicine, University of Benin Teaching Hospital, Benin City

BACKGROUND: Incidence of diabetes mellitus is increasing worldwide and 20-30% of diabetics develop diabetic nephropathy (DN). DN is the leading cause of end-stage renal disease in US and Europe. Prevalence of DN is on the increase in Nigeria and ranks 3rd amongst causes of chronic renal failure in Nigeria. Poor control of blood glucose, blood pressure and dyslipidaemia are some of the risk factors for development CKD in diabetics. Early identification and modification of risk factors for CKD should form part of the preventive

strategies in the management of diabetic patients.

This study screened for risk factors for CKD in type 2 diabetics attending the University of Benin teaching Hospital(UBTH)

METHODOLOGY: A descriptive cross-sectional study where 144 (53 males and 91 females) type 2 diabetics were screened for risk factors for CKD. Average fasting blood glucose and blood pressure of 3 consecutive clinic attendance were done. Weight (Kg), height (m) and hip circumference (HC) were measured and body mass index (BMI) was calculated. Mean blood pressure and fasting blood glucose of 3 clinic visits were calculated. Fasting serum lipid profile was assessed. Metabolic syndrome (MetS) was defined using the NCEP-ATP III 2001 criteria. Poor glycaemic and blood pressure control were defined as FBS > 130mg/dl and BP > 130/80mmHg respectively. The data were analysed using SPSS version 16.

RESULTS: The mean age of the study population was 57.49±11.49 years with a M:F ratio of 1: 1.7 The average duration of DM and hypertension were 6.02±6.02 years and 7.19±6.91years respectively. The average BMI and HC were 28.32±5.03kg/m² and 103.4±12.82cm respectively. The mean systolic and diastolic BP were 132.76± 15.73mmHg and 70.32±8.91mmHg respectively. The total cholesterol, HDL-C, triglyceride, LDL-C were 177.94±45.52mg/dl, 52.6±18.58mg/dl, 111.94± 42.59mg/dl and 104.22±38.28mg/dl respectively. 97 (67.4%) of the 144 patients were hypertensive and of these, only 29 (29.9%) had good BP control. Good glycaemic control was found in only 77 (53.5%)

patients. Dyslipidaemia and metabolic syndrome were present in 93 (64.6%) and 102 (70.8%) patients respectively. 107 patient (74.3%) were overweight and obese. There was a positive correlation between the age and systolic BP (p < 0.001), BMI and diastolic BP (p = 0.01). There was significant association between MetS and BP control (p <0.001), but no association between MetS and glycaemic control.

CONCLUSION: The risk factors for CKD in type 2 diabetic patients attending UBTH are highly prevalent. Efforts should be geared towards modifying these risk factors in order to prevent or slow down development of CKD.

2. ABS/2013/PREV NEPH-02

TITLE: CLINICO-PATHOLOGICAL STUDY OF DIABETIC NEPHROPATHY IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

AUTHORS: Akinbodewa AA, Arogundade FA, Sanusi AA, Omotosho BO, Akinsola A.

ADDRESS: Renal Unit, Department of Medicine Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria.

Introduction: The prevalence of Diabetes Mellitus and its complicating nephropathy have assumed epidemic proportion globally. It is now the commonest cause of end-stage renal disease (ESRD) in the

USA and Europe and the prevalence is increasing in developing countries. There have been scanty studies to look at the relationship between renal function and histology in Nigerian diabetics hence this study.

Methodology: Type 2 Diabetic patients being followed up in Endocrinology Unit were screened for renal disease defined as presence of proteinuria and/or reduced GFR less than 60ml/min. Clinical characteristics and laboratory parameters and renal histopathology were assessed in those with kidney disease. Data was analysed using SPSS package 15.

Results: Of the 183 diabetics screened for CKD, 88 (48.1%) had evidence of CKD. Only 28 patients consented to renal biopsy, the mean (\pm SD) age was 57.82 (\pm 5.81) years with a M:F ratio of 1:1.15. The mean (\pm SD) duration of DM, age at diagnosis, BMI, SBP and DBP were 9.46 (\pm 4) years, 48.36 (\pm 6.52) years, 25.88 (\pm 3.64) kg/m², 143.6(\pm 21.6) mmHg and 86.9 (\pm 12.9) mmHg respectively. Diabetic retinopathy was present in 12(42.9%) and 4(14.3%) had concomitant hypertensive retinopathy.

The median daily protein excretion was 0.55g/day with a range of 0.1 to 6.4g/day, the FBG was 6.74 \pm 1.94mmol/L. the mean serum creatinine was 124.14 \pm 41.69 μ mol/L. the mean estimated GFR was 46.01 \pm 11.47ml/min. the mean PCV was 35.18 \pm 6.77%. The mean total cholesterol was 5.13 \pm 1.04mmol/L. the HDL was 1.53 \pm 0.58mmol/L.

Renal histopathology (light microscopy) revealed 27(96.4%) with GBM thickening. 13(46.4%) had mesangial expansion, while 3(10.7%) had nodular sclerosis. 15(53.6%) had diffused sclerosis. 22(78.6%) had

hyaline arteriolosclerosis. 3(10.7%) had capsular drop.

Conclusion: The main clinical characteristics in diabetics with nephropathy were concomitant hypertension and proteinuria while the main histological finding was hyaline arteriolosclerosis and diffuse sclerosis. Nodular sclerosis was uncommon.

3. ABS/2013/PREV NEPH-03

TITLE: ADHERENCE TO AAMI GUIDELINES BY HAEMODIALYSIS CENTRES IN SOUTH EAST NIGERIA

AUTHORS: Ume Nwobodo¹, Chinwuba Ijoma², Ifeoma Ulasi², Uchenna Ijoma²

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ABSTRACT

Introduction The Association for Advancement for Medical Instrumentation (AAMI) current guidelines recommend that haemodialysis centres test water for haemodialysis every three months to ensure safety of dialysis water. This is necessary to ensure safety of water used for dialysis. Use of impure water for haemodialysis has been associated with morbidity and mortality in dialysis patients. This study assessed the compliance of haemodialysis centres with

this guideline in 8 haemodialysis centres in 6 towns in South east Nigeria

Method A structured questionnaire was administered to each of eight haemodialysis centres to assess source of feed water, method of water treatment, water monitoring techniques, and frequency of water testing.

Result Four (50%) of the centres were in government owned tertiary health institutions (three federal government owned and one state government owned hospital), two (25%) were in hospitals owned by religious organisations, while the remaining two (25%) were owned by private individuals.

Three (37.5%) centres tested pre and post treatment water for dialysis for both bacteriological and chemical contaminants every three months, 2 (25%) centres tested every six months, 2 (25%) centres tested water rarely, and one (12,5%) centre never tested water. The centres in public hospitals adhered better to the guideline than the privately owned institutions

Conclusion Adherence to AAMI guideline with respect to testing of water for haemodialysis is poor in haemodialysis centres in South east Nigeria as only 38% of the centres complied with guideline. Efforts including education and possibly sanctions should be deployed to ensure better compliance

4. ABS/2013/PREV NEPH-04

TITLE: RENAL RISK
PROFILING IN NEWLY

DIAGNOSED
HYPERTENSIVES

AUTHORS: Gbadegesin BA,
Ayodele OE, Okunola OO,
Arogundade FA, Akinsola.A

OBJECTIVES:

The study was aimed at determining the occurrence and pattern of renal risk factors in newly diagnosed hypertensives. It was also aimed at detecting the relationship between the risk factors and the kidney function. It would also explore the relationship if any, between the level of blood pressure at diagnosis and kidney function.

METHODS: This was a cross-sectional study involving 250 newly diagnosed hypertensive patients and 250 aged and sex- matched controls. Respondents were recruited from General Outpatient Department of both LAUTECH Teaching Hospital and General Hospital, Asubiaro, Osogbo. Structured questionnaires were used to extract information on socio-demographic characteristics and renal risk habits. Biophysical measurements of the participants were also done. Participants were screened for the presence of macroalbuminuria, albumin-creatinine ratio and serum creatinine were also assessed. Glomerular filtration rate was estimated using Modification of Diet in Renal Disease equation. Prevalence of the risk factors for chronic kidney disease was determined and the association (s) between the risk factors and chronic kidney disease was assessed.

RESULTS: The mean age of cases was 55.7 years (SD = 11.3) compared

to a mean of 55.2 years (SD = 12.5) for controls. There was no significant difference between the mean ages or the gender distribution, about 40.4% of cases compared to 41.2% of controls were males ($p=0.856$). Newly diagnosed hypertensives had significantly higher prevalence of analgesic use (86.4% vs 41.6%, $p<0.001$), alcohol use (20.8% vs 12%, $p = 0.008$), herbs use (51.6% vs 26.1%, $p<0.001$), use of salted food (18.8% vs 8.4%, $p = 0.001$), and central obesity (36.1% vs 26.8%, $p = 0.025$) compared to controls. The prevalence of impaired kidney function in the newly diagnosed hypertensives using GFR $<60\text{mls/min}/1.73\text{m}^2$ was 28.0%.

The overall prevalence albuminuria among the newly diagnosed hypertensives was 47.6%, with prevalence of macroalbuminuria and microalbuminuria being 5.6% and 42% respectively. The newly diagnosed hypertensives with risk factors have significantly lower mean eGFR when compared with newly diagnosed hypertensive without risk (59.80 ± 17.55 vs 74.68 ± 20.92 mls/min, $p = <0.0001$). There was a significant negative correlation between eGFR and magnitude of risk factors ($r = -0.597$, $p < 0.001$), the greater the magnitude of renal risks (0 – 3, >3 – 6, >6) the lower the eGFR.

Among newly diagnosed hypertensives logistic regression of CKD on variables showed that males were less likely than females to have CKD or females are more likely to develop the disease compared to male participants (OR = 0.244, 95% CI = 0.108 – 0.551). Increasing age (OR = 1.064, 95% CI =

1.043-1.085), fasting hyperglycaemia (OR = 4.799, 95% CI = 1.602 – 14.374) and diastolic blood pressure (OR = 1.045, 95% CI = 1.007 – 1.084) were predictive of chronic kidney disease.

CONCLUSION: There is high magnitude of renal risk factors in the newly diagnosed hypertensive patients. These risk factors exhibit significant impact on renal function with the critical ones being age, female sex, fasting hyperglycaemia and diastolic blood pressure. Majority of these risk factors are modifiable risk factors. Health awareness programme and policies should be formulated to reduce the burden and risk for chronic kidney disease in this study population and thus cardiovascular mortality.

5. ABS/2013/PREV NEPH-05

TITLE: SPOT ASSESSMENT OF CHRONIC KIDNEY DISEASE RISK IN A POPULATION OF TRADERS IN CENTRAL BENIN CITY

AUTHORS: Adejumo OA, Iyawe IO, Olorok AB, Okaka EI, Oviasu E and Ojogwu LI
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Introduction The prevalence of chronic kidney disease (CKD) is on the increase in Nigeria. There is no national screening programme for CKD. As part of the world kidney day activities of 2012, we proceeded to screen traders in central

Benin City for the presence of CKD risk factors.

Methodology Traders in Oba Market and environs in central Benin City were invited to the town hall at the Ring Road in Benin City. Parameters obtained from participants included age, sex, height, weight, random blood sugar, urinalysis and blood pressure. Data was analysed using SPSS16.

Results A total of 178 persons screened were 85(47.8%) males and 93(52.2%) females with a mean age of 42.7 ± 13.1 years. About half of participants (52.2%) had normal range BMI while 49(27.5%), 30(16.9%) and 6(3.4%) were overweight, obese and underweight respectively. Hypertension was observed in 57.3%, elevated random blood sugar in 13(7.3%) and proteinuria in 11(6.2%). There was significant positive correlation between: BMI and Systolic BP ($p=0.001$); BMI and Diastolic BP ($p<0.001$); Age and Systolic BP ($p=0.003$); Age and Diastolic BP ($p=0.027$).

Conclusion The most prevalent risk factor for CKD in the population studied was hypertension. We propose a nationwide hypertension survey programme to identify persons with undiagnosed hypertension as well as screening for diabetes and proteinuria.

THEME: MISCELLANEOUS

1. ABS/2013/MISC—01

TITLE: 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) and AKI in 1 child each. 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 in combined with lamivudine. Remission occurred only in 8 children with NS and followed steroid therapy in 7, and was spontaneous in 1. 5 children who were not in ESKD at presentation progressed to ESKD, 2 patients with GN and 3 with NS,

one of whom did not receive corticosteroid therapy and 2 with FSGS and steroid resistance.

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

2. ABS/2013/MISC—02

TITLE: GALACTORRHOEA WITH HYPERPROLACTINEMIA IN A PATIENT WITH LUPUS NEPHRITIS – A CASE REPORT

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Background: Hyperprolactinemia is observed in multiorgan specific autoimmune diseases of which Systemic Lupus Erythematosus (SLE) is among. Prolactin is known to have an immunostimulatory effect and promotes autoimmunity, there is however no correlation between prolactin levels and disease activity. We report a patient with lupus nephritis presenting with galactorrhoea from hyperprolactinemia.

Case Report: T.J is a 26 year old female diagnosed with SLE 2 years ago who subsequently developed renal impairment and was clinically assessed to have lupus nephritis and on steroid therapy. She presented with an episode of generalized

tonic clonic seizures associated with headache and vomiting with an incidental finding of galactorrhoea. Her essential examination findings were that of cushingoid facies, elevated blood pressure and demonstrable galactorrhoea. Her pupils were normal with no papilloedema on fundoscopy. Investigation results show positive anti nuclear factor, anti double stranded DNA, anti SM and anti SSA antibodies. Her brain MRI scan showed no intracranial mass with normal pituitary fossa. She had elevated prolactin levels of 37.3 ng/ml and normal levels of FSH, LH and Estradiol at 5.8mIU/ml, 4.2mIU/ml and 79pg/ml respectively. The patient was then commenced on bromocriptine with subsequent reduction in galactorrhoea.

Conclusion: Hyperprolactinemia in lupus is uncommon but can occur and should be considered in the evaluation and management of such patients.

3. ABS/2013/MISC—03

TITLE: QUALITY OF NATIVE WATER FOR HAEMODIALYSIS IN SOUTH EAST NIGERIA

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ABSTRACT

Introduction The quality of source water determines to some extent the rigor of purification required and the composition and safety of the final water for dialysis. The sources of water for haemodialysis in the centres studied were borehole, well water, municipal tap water, water from streams, spring, and dam. This study assessed the quality of native source water at 8 haemodialysis centres in 6 towns in South east Nigeria

Method Structured questionnaire was administered to the participating centres to determine the source of native water for dialysis. Water samples were collected from source water and tested for aluminum, calcium, magnesium, potassium, sodium, chloramines, nitrate and free chlorine. Water samples were also cultured for organisms. Endotoxin analysis was done using limulus Amaeocyte assay.

Results Borehole was used solely in five(63%) centres, tap water in one(12.5%) centre, well water was used solely in one(12.5%) centre, while the remaining one(12.5%) centre used water from a dam. The mean concentration of sulphate, calcium, chloramines, aluminium and nitrate in the native water source exceeded the Association for Advancement for Medical Instrumentation (AAMI) recommendation while the mean concentration of sodium, potassium, magnesium and fluoride in the feed water were within the AAMI recommendation. Chloramines were above the acceptable level. The turbidity and hardness were less than 1 and 5 respectively.

Conclusion Native source water in South east Nigeria is largely soft but has significant levels of chemical

contaminants. It is however free of pathogenic organisms. It should be suitable for haemodialysis with the standard purification methods.

4. ABS/2013/MISC—04

TITLE: A 2 YEAR REVIEW OF RENAL ADMISSIONS IN THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL, PORT HARCOURT.

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INTRODUCTION The magnitude of the burden of renal disease especially chronic kidney disease (CKD) is enormous, and the prevalence of CKD is on the increase globally.

The objective of this study was to determine the spectrum and outcome of renal disorders admitted into the medical wards of the University of Port Harcourt Teaching Hospital over a 2year period (January2010- December2011).

METHOD Sample data was obtained from the hospital register of the medical wards and collated. Data analysis was done using SPSS version 17.

RESULTS During the period of study, 2244 patients were admitted in the medical

wards, consisting of 1163 (51.8%) males and 1081(48.2%) females. Renal diseases accounted for 362 (16.1%) of admissions, 149 (41.2%) in 2010 and 213 (58.8%) in 2011. Of these, males consisted 210 (58%) and females 152 (42%). The mean age of the patients was 45.3 ± 15.7 years (range 17 – 85 years). The mean duration of admission was 16.8 ± 14.9 days with a range of 1 – 92 days. Hypertensive nephrosclerosis, Diabetic nephropathy and Chronic glomerulonephritis were the most prevalent renal disorders accounting for 22.4%, 14.9% and 12.4% respectively. Patients with HIV associated renal disease accounted for 13.3%, acute kidney injury 13.3% and obstructive uropathy 2.8%. Twelve patients (3.3%) had nephrotic syndrome and 1(0.3%) had ADPKD.

Analysis of outcome showed that 177 patients (48.9%) were discharged home, 29(8%) were noted to have absconded or signed against medical advice, while the outcome was not indicated in 69 (19.1%) cases. Eighty seven patients died, giving a mortality rate of 24%.

CONCLUSION Renal disease, both acute and chronic kidney disease, remains a significant reason for admission in medical wards, with a high mortality rate. Efforts should therefore focus on identification of risk factors for kidney disease to reduce the mortality associated with it.

5. ABS/2013/MISC—05

TITLE: ADULT NEPHROTIC SYNDROME (ANS) IN THE NIGER DELTA SUB-REGION : A SINGLE CENTRE STUDY AT THE UNIVERSITY OF

PORT HARCOURT TEACHING HOSPITAL.

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ABSTRACT:

BACKGROUND: Adult nephrotic syndrome (ANS) is a common cause of chronic kidney disease(CKD) globally and in sub-Saharan Africa. In Nigeria the few studies of Adult nephrotic syndrome were mostly from the south -west parts of Nigeria.

This study aims at contributing to the National data on Adult nephrotic syndrome, from the perspective of the Niger delta sub region.

METHOD: Retrospective analysis of five -year clinical data (January 2007 to December 2011) of Adult nephrotic syndrome patients in the University of Port Harcourt teaching hospital.

RESULTS: A total of 44 patients , accounting for 1% of medical admissions and 7.3% of adult renal cases seen during the period under study, with mean age 27.7 ± 8.5 (15-59)years .There were 32 males(72.7%) , M/F ratio of 2.7:1. Mean duration of illness was 25.3 ± 30.3 (1-96) months. Peak age group in the 20-29 year age group accounting for 52.3%. They had obesity rate of 20.5%, hypertension prevalence of 45.5% ,and mean e-GFR of 73.5 ± 33.8 mls/min/1.73m² . CKD 1-3

constituted 93.2%, while CKD 4 and 5 constituted 4.5% and 2.3 % respectively.

Their baseline laboratory parameters showed heavy proteinuria, with a mean 24-hour urinary protein excretion of $13.6 \pm 8.4(4.1-34.7)$ grams. Twenty-four hour protein excretion of ≥ 10 grams were observed in 65.8% of the patients. Mean total serum protein and albumin were 51.4 ± 11.7 g/dl and 22.5 ± 9.9 g/dl respectively. Mean plasma lipid concentrations, were T.chol. (8.1 ± 3.0), Triglycerides (2.3 ± 0.9), LDL (2.3 ± 1.5), HDL (0.9 ± 0.6) mmol/l respectively. Anemia was common (68%) ,with a mean haemoglobin conc. of $10.0 \pm 2.0(6.7-13.4)$ g/dl. Histopathologic patterns(light microscopy) were MCGN-(52.6%), Minimal change disease(MCD)-(21.1%),MN-(15.8%) and FSGS-(10.5%)

respectively. Though response to therapy were generally poor, immunosuppressive therapy showed better outcomes than conservative and steroid therapy respectively.

CONCLUSIONS: The prevalence and pattern of Adult nephrotic syndrome(ANS) in the Niger delta sub region is similar to other parts of Nigeria. ANS is predominately a disease of adolescents and young adults with males preponderance, characterized by massive proteinuria, gross dyslipidaemia, high prevalence of hypertension , and poor histologic categories .The disease however, runs an indolent course with slow progression to ESRD.