Caribbean Renal Registry Data
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Introduction: There is an increasing number of persons with End Stage Renal Disease (ESRD) in the Caribbean. It is important to have a Caribbean renal registry in order to perform (inter)national comparisons in renal epidemiology. The registry will monitor the incidence and prevalence of Chronic Kidney Disease (CKD), its causes and emerging trend. It will help with the determination of the burden of kidney disease in the region and inform healthcare planners and policy formulators.

Methods: Questionnaires were sent out to different Caribbean countries, to be distributed to the dialysis units. Data were obtained for patients with ESRD who were on long term renal replacement therapy in 2006. The demographic data, type of renal replacement therapy, laboratory data and causes of ESRD were obtained from the questionnaire. Data were analyzed using SPSS 11.0

Results: Data were reported from six English-speaking Caribbean countries: Bahamas (n = 211), Barbados (n = 185), British Virgin Islands (n=27), Cayman Islands (n = 41), Jamaica (n = 366) and Trinidad and Tobago (n = 436). Haemodialysis was reported in all the countries. Only Bahamas, Jamaica and Trinidad and Tobago reported peritoneal dialysis. The Cayman Islands did not report transplantation. In Jamaica, male to female ratio was 1.5:1. The three commonest causes of end stage renal failure were hypertension (65.5%), diabetes mellitus (27.6%) and primary chronic glomerulonephritis (GN) (12.5%). The age range was 11–94 years (mean 47.7 years). Barbados had male to female ratio of 1.8:1, age range of 19–81 years (mean age: 52.3 years). Hypertension (55.7%) and diabetes mellitus (27.0%) were the commonest causes. Trinidad and Tobago had a male to female ratio 1.3:1. Age range was 8–84 years (mean age 52.5 years). The three commonest causes were diabetes mellitus (28.9%), hypertension (25.3%) and autosomal dominant polycystic kidney disease (3.9%) and chronic glomerulonephritis (3.9%). The British Virgin Islands, Tortola, had male to female ratio 1.7:1.0, age range was 26–86 years (mean, 57 years). Hypertension (67.9%) and diabetes mellitus (46.4%) were also the commonest causes. Bahamas had male to female ratio of 1:1.1 unlike the other countries. Hypertension (25.6%), diabetes mellitus (28.0%) and chronic glomerulonephritis (13.3%) were the commonest cause of ESRD. The Cayman Islands reported a male to female ratio of 1.2:1, with a mean age of 54.3. Hypertension (n = 27), diabetes mellitus (n = 12) and autosomal dominant polycystic kidney disease (n = 3) were the commonest causes of ESRD.

Conclusion: Hypertension, chronic GN and diabetes mellitus were the commonest causes of ESRD across most of the English-speaking Caribbean countries. Peritoneal dialysis was only offered in some of the islands and kidney transplantation was rarely reported. More males than females were on long term renal replacement therapy in most of the islands.

Renal Biopsies Done in Jamaica in 2006
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Introduction: It was reported in 1984 that Systemic Lupus Erythematous (SLE) and mesangial proliferative glomerulonephritis were common causes of proteinuria and nephrotic syndrome in Jamaica. It is believed that the trend in primary glomerular disease is changing as reported by other studies.

Methods: Data were collected for native renal biopsies done for 2006. All renal biopsies done in Jamaica were sent to the University Hospital of The West Indies (UHWI) for histopathological diagnoses. Demographic data were obtained from requisition forms sent along with clinical and laboratory parameters. Data were entered and analyzed using SPSS 11.0.

Results: Seventy-eight native renal biopsies were performed in 2006. Fifty-six (71.8%) were done at UHWI and 22 (28.2%) were done outside. Age range was between 4–72 years. Fourteen (17.9%) persons were 14 years and under and 62 were (82.1%) over that age. There were more females, 48 (61.5%), than males 30 (38.5%). Sixty-four (82.1%) had proteinuria and 14 (17.9%) had haematuria. The majority of persons (66.7%) did not have quantified proteinuria on the requisition form. Serum albumin was not recorded for 62 (79.3%) of the cases. Light microscopy was done on all biopsies and 44 (56.4%) had immunoflourescence performed (IF). No electron microscopy was performed. The average number of glomeruli were 14 per biopsy specimen. No glomerulus was present in two specimens. The total number of primary glomerulonephritis was 43 (55.1%). Focal and Segmental Glomerulosclerosis (FSGS) was the most common lesion (25.6%) followed by Minimal Change Disease (MCD) (18.6%) and Membranous Glomerulonephritis (MGN) (16.3%). Lupus nephritis, LN (n = 28) was the predominant cause of secondary glomerular disease (n = 35).

Conclusion: FSGS, MCD and MGN were the most common lesions in primary glomerular disease. Lupus nephritis was
the predominant cause of secondary glomerular disease. Clinical data were deficient. Electron microscopy might have helped to differentiate between some histological types eg MCD and FSGS. More specimens need to be sent for IF.

Quality of Life and its Correlates in Chronic Dialysis Patients
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Background: Quality of Life (QOL) is an independent risk factor for mortality in End Stage Renal Disease (ESRD). Traditional parameters such as haemoglobin concentration > 11.1 g/dl, higher socioeconomic status, educational level >10 years of study, Kt/V > 1.2 or urea reduction ratio (URR) > 65%, show a positive correlation with quality of life. Others such as age > 65 years, comorbidity, diabetes mellitus, female gender, poor socioeconomic and educational status (< 10 years duration) are risk factors for poor quality of life. Black populations within the United States of America have recorded higher QOL scores than their matched Caucasian population despite having negative predictive clinical parameters.

Quality of life and its correlates in chronic dialysis patients have not been previously documented in the English-speaking Caribbean. We therefore undertook a QOL survey in a tertiary care hospital outpatient haemodialysis and peritoneal dialysis units.

Methods: The Kidney Disease Quality of Life Short Form Questionnaire was completed by 60 haemodialysis and 10 peritoneal dialysis patients. This represented ninety per cent of both dialysis populations. Mean haemoglobin (Hb) concentration was 10.0 ± 1.8 g/dl, mean serum albumin 41± 6.4 g/dl and URR 75% ± 9%.

Results: Mean QOL scores were equivalent to the means of the sample population except in Sleep function (p = 0.03), Burden of Kidney Disease (p = 0.002) and Dialysis Staff Satisfaction (p = 0.045) which were significantly lower. Positive correlates were noted with Hb > 10g/dL (p = 0.02), URR > 65% (p = 0.01), serum albumin > 35 g/dL (p = 0.024) and high socioeconomic status (p = 0.045) but not with age > 65 years, comorbidity eg DM, nor educational level (p > 0.05). Female gender was associated with higher Quality of Social Interaction scores (p = 0.045) and Sexual Function scores (p = 0.008) while males reported higher Physical Functioning scores (p = 0.024). Higher socioeconomic status patients reported higher Quality of Social Interaction scores (p = 0.05) and Energy scores (p = 0.007) with positive correlation with Hb concentration (p = 0.02) and URR (p = 0.024). Lower income groups had worse Pain scores (p = 0.021) and Burden of Kidney Disease scores (p = 0.02). Married patients reported worse Pain (p = 0.01), Emotional wellbeing (p = 0.024) and Energy scores (p = 0.05). Higher Patient Satisfaction (p = 0.04) and Dialysis Staff Encouragement (p = 0.048) were seen among those with health insurance coverage. Age < 60 years was associated with higher Physical Functioning (p = 0.048) and Emotional Role (p = 0.002) with age > 65 years reporting lower Energy scores (p = 0.03). Multivariate analysis showed these to be independent associations.

Conclusion: Overall, QOL among the chronic dialysis patients in this study is good. Positive predictive correlates were age < 65 years, Hb > 10g/dL, URR > 65%, serum albumin > 35g/dL and higher socioeconomic status.

Neurological Complications in Patients on Chronic Dialysis Therapy
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Background: Neurological disease represents significant morbidity among chronic dialysis patients whether disease or dialysis associated. It has now been proven that stroke, dementia and uraemic myopathy are independent mortality predictors in this cohort of patients. We therefore undertook to ascertain the prevalence of neurological complications among chronic dialysis patients at a tertiary level hospital outpatient dialysis centre.

Methods: Sixty haemodialysis and ten peritoneal dialysis patients were consecutively recruited. All were subjected to questionnaire directed interviews and neurological examinations. A consultant neurologist confirmed the neurological complications based on clinical, biochemical, pathological and radiological parameters.

Results: Mean haemoglobin (Hb) concentration was 10.0 ± 1.8 g/dl, mean urea reduction ratio (URR) 75% ± 9%, mean serum albumin 41 ± 6.4 g/dl. Hypertension accounted for 40% of the aetiology of ESRD, followed by chronic glomerulonephritis and diabetes mellitus, 15.7% and 12.9% respectively. Peripheral sensory neuropathy had an overall prevalence of 77% compared with 4.3% and 8.6% respectively for peripheral sensorimotor and autonomic neuropathy. Age, duration of end stage renal disease, comorbidities of DM and hypertension were not risk factors for these neuropathies (p > 0.05).

Overall prevalence for uraemic myopathy, dementia, stroke and transient ischaemic attack were 50%, 12.9%, 12%, 1.4% respectively. Stroke was a risk factor for dementia (p = 0.02, Odds ratio 1.52) There was a trend towards stroke in chronic haemodialysis patients (odds ratio 3.52, p = 0.109).

Twenty-five (25%) per cent of cases had documented seizures with 80%, 12% and 8% being generalized tonic clonic, complex partial and simple focal seizures respective-