Aetiology of Paediatric End Stage Renal Failure in Jordan: A Multicenter Study

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Objective: The purpose of this study was to find out the aetiology of end stage renal failure (ESRF) in Jordan.

Patients and methods: A multicenter retrospective study at five participating hospitals. Data collection included medical record review for age, gender, aetiology of ESRF, modality of renal replacement therapy (RRT) and outcome. End stage renal failure was defined as eGFR < 15 ml/min/1.73 m2.

Results: There were 275 children with ESRF. Males were 131 and females 144. The most common causes of ESRF in children were congenital anomalies of the kidney and urinary tract (CAKUT) 56.0%, heredofamilial disorders 23.2% and glomerulopathies 22.9%. Neurogenic bladder, reflux nephropathy, and posterior urethral valve accounted for 16.8%, 12.7% and 4.0% respectively. Amongst the heredofamilial disorders, primary oxalosis and cystic disease accounted for 8.0% and 7.2% of the aetiologies of ESRF, respectively. Focal segmental glomerulosclerosis was the most common aetiology amongst the glomerulopathies (10.2%), followed by mesangiocapillary glomerulonephritis (4.7%), and chronic glomerulonephritis (3.0%). The aetiology was unknown in 4% of the cases. Modality of dialysis included isolated peritoneal dialysis (PD) in 30.9%, isolated haemodialysis (HD) in 49.1%, alternating peritoneal and haemodialysis in 9.1%, transplanted 8.7%, and conservative treatment 1.8%. Death occurred in 57.3% of PD patients versus 34.4% in HD patients.

Conclusion: This is the first accurate report on the aetiology of ESRF in Jordan. The most common aetiologies of ESRF in Jordan were CAKUT 56.0%, heredofamilial disorders 23.2%, and glomerulopathies 22.9%.

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