

Demographic Characteristics of Patients and Causes Leading to Chronic Renal Failure in Children Admitted to Mashhad Children Hospital

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Abstract

Background: An irreversible renal function impairment is called chronic renal failure (CRF) which finally leads to the “end-stage renal disease” (ESRD) and requires renal replacement therapies. The aim of this study is to evaluate the incidence, prevalence of epidemiological indicators (age, sex), and causes of chronic renal failure in children in Mashhad (one of the big cities of Iran).

Methods: This is a cross-sectional study that was conducted on patients' records over a seven-year period (2008-2014) in Doctor Sheikh Children's Hospital of Mashhad. The inclusion criteria were all children under 20 years old diagnosed with ESRD, with a GFR less than 15 ml/min/1.73 m² who were referred to the hospital during the study period. Patients' information, such as age, gender, onset of dialysis, causes of constructing renal failure, and positive or negative antigen of hepatitis B was extracted from their records. Data were analyzed using SPSS 16 software. **Results:** A total of 326 patients were studied, of which, 56.4% were male. 45.1% were from 7 to 18 years. 56.4% of patients were on hemodialysis and others were on peritoneal dialysis. The most common cause of chronic renal failure in the study was respectively reflux nephropathy (32.9%), nephrotic syndrome (8.9%), neurogenic bladder (5.5%), stones (2.5%), glomerulopathy (2.1%) and cystinosis (1.5%) and (20.9%) had unknown cause. During the 7-year period of study considering the treatment outcomes, 69.3% of patients needed to continue the dialysis; 10.4% underwent transplantation; 10.4% unfortunately died despite of treatment and 1.5% were cured. **Conclusions:** It is hoped that considering the clinical symptoms of