

Management and outcome of children with end-stage renal disease in northwest Iran

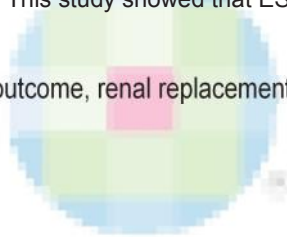
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ABSTRACT

Outcome of end-stage renal disease (ESRD) in children has considerably improved since the development of dialysis and kidney transplantation. This study was conducted to evaluate the management and outcome of ESRD children in a referral pediatric center in northwest Iran. A cross-sectional study of medical records of ESRD children (glomerular filtration rate less than 15 ml/min/1.73 m²) younger than 16 years who were admitted in Children's Hospital of Tabriz between October 1999 and October 2009 was performed. Ninety-four children with ESRD including 51 boys (54.3%) and 43 girls (45.7%) with a mean age of 7.9 ± 3.49 years were studied. Parents of nine patients (7.8%) refused treatment. Eighty patients underwent renal replacement therapy (RRT) and were followed for a mean period of 4.86 ± 2.77 years. Initial modality of RRT was hemodialysis in 81.25%, continuous ambulatory peritoneal dialysis in 16.25%, and preemptive kidney transplantation in 2.5%. Thirty-two patients (34%) underwent renal transplantation. The mean duration of staying on dialysis before transplantation was 12.4 ± 11 months. Twenty-nine of kidney donors (90.6%) were living unrelated donors. The 1- and 3-year graft survival rates were 81.2% and 68.8% and the 1- and 3-year patient survival rates were 96.9% and 93.8%, respectively. Thirty-one patients died (33%). The mortality of girls was significantly higher than boys ($P=0.04$). There was a significant negative correlation between age and mortality ($P=0.01$). Heart failure and infections were the most common cause of death. This study showed that ESRD children in our area have a poor outcome in comparison with developed countries.

Key words: Children, end-stage renal disease, outcome, renal replacement therapy



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