Maintenance Renal Replacement Therapy of the Korean Children.

IL-SOO HA
Seoul National University Hospital, Korea, Republic of

Korean Pediatric CKD Registry was established in 2004 to understand the scale and the situation of the chronic renal replacement therapy in Korean children funded by KSN. It was also designed to improve the care of end-stage renal disease (ESRD) by providing the calculators for the Z-scores of growth indices for Korean children, and dialysis adequacy calculators specific for children. From January 2004 to December 2016, 442 patients less than 20 years of age with ESRD have been registered in the registry. Data were updated at least once a year. The patients developed ESRD at a mean age of 9.8±5.4 years. The age distribution was as follows: <5 years 21.0%, 5-9 years 27.1%, 10-14 years 33.0%, and 18.8% were >15 years. The main causes of ESRD were non-glomerular origins such as congenital anomalies of the kidney and urinary tract and cystic kidney diseases. The number of pediatric patients with ESRD had steadily increased. The annual incidence had increased from 1.75 per million age-related populations (pmarp) in 2004 to 2.58 pmarp in 2016. The point prevalence of ESRD was 2.38 pmarp in 2004, and 4.67 pmarp in 2016. The first modality of RRT was peritoneal dialysis (PD) in 240 (54.3%), hemodialysis (HD) in 118 (26.7%), and preemptive kidney transplantation in 84 (19.0%) patients. Height Z score was significantly higher in children with allograft compared to those on hemodialysis. Height growth was also higher but in less degree in children on PD than those on HD. The overall patient survival rate was 98.4% at one year, 94.4% at three years, and 92.1% at five years. There was no difference in survival rate between the children on different dialysis modalities. However, the survival of children who initiated dialysis at age less than two years was significantly lower than those who began dialysis at an older age. Infection and underlying malignancy were the leading causes of death followed by cardiopulmonary, hepatic, and neurologic comorbidities.