

Abstract Type : Oral

Abstract Submission No. : OR-1412

Time-trends in kidney transplantation in South Korea; a nationwide cohort study from 2007 to 2015

Sehoon Park¹, Ji-Eun Kim¹, Mi-yeon Yu², Kwang Soo Kim³, Minsoo Park⁴, Yong Chul Kim¹, Dong Ki Kim¹, Kwon Wook Joo¹, Yon Su Kim¹, Hajeong Lee¹

¹Department of Internal Medicine-Nephrology, Seoul National University Hospital, Korea, Republic of

²Department of Internal Medicine-Nephrology, Hanyang University Guri Hospital, Korea, Republic of

³Department of Biomedical Research Institute, Seoul National University Hospital, Korea, Republic of

⁴Department of Statistics and Data Center, Samsung Medical Center, Korea, Republic of

Objectives: Detailed nationwide information regarding recent status and time-trends of kidney transplantation in South Korea is limited.

Methods: We performed a nationwide, population-based cohort study using the national claims database of Korea in which nationwide health insurance is provided. We included kidney transplant recipients under age 70 from 2007 to 2015 and their demographic and clinical characteristics were collected. The prognostic variable was death-censored graft failure, and graft failure was determined when patient returned to maintenance dialysis.

Results: The number of kidney transplantation showed an increasing trend, and the number increased from 820 in 2007 to 1755 in 2015. The incidence proportion of kidney transplantation among end-stage renal disease patients under age 70, which was below 3% in 2007, reached approximately 4% in 2015. The median age of the kidney transplant recipients consistently increased from the past, and proportion of patients with underlying diabetes mellitus was prominently increased, reaching 42.1 % in 2015. More than half of kidney transplantation was performed within hospitals in Seoul. The dialysis duration before transplantation was significantly increased, and in 2015, about 35.2 % kidney transplantation was performed after more than 5 years of dialysis, which was 9.6% in 2007. Regarding maintenance medication usage, proportion of patients who were prescribed with tacrolimus greatly increased, while cyclosporine was less frequently used. One-year maintenance immunosuppressive medication possession ratio was consistently increased from the past, implying better medication compliance. Transplantation-related costs was greatly increased during the study period, particularly regarding government coverage, whilst patient burden for insured costs were decreased from the past. Overall prognosis of kidney transplantation was improved in the recent periods.

Conclusions: Kidney transplantation is becoming a more prevalent modality of renal replacement therapy. While old-age transplantation is becoming more common, prognosis has been generally improved, but related insured costs were increasing prominently.