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Session Title : -

Declining trends of preemptive kidney transplantation and impact of pre-transplant dialysis: a Korean nationwide prospective cohort study

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Kidney transplantation (KT) is the best treatment option for patients with end-stage kidney disease (ESKD). Preemptive KT refers to KT performed before initiation of dialysis, and it offers advantages with respect to graft and patient survival, quality of life, and medical expenses compared to KT after pretransplant dialysis. Despite these advantages, there are several obstacles for performing preemptive KT. We analyzed the temporal trend of preemptive KT in Korea and evaluate the effects of pretransplant dialysis duration on the post-transplant outcomes. We analyzed the 3,392 first-time living donor KT (LDKT) recipients between 2014 and 2019 from the Korean Organ Transplant Registry (KOTRY) database. Preemptive KT was performed in 816 (24.1%) patients. Annual trend analysis revealed gradual decrease in preemptive KT over time. Among the underlying causes of preemptive KT, the proportion of diabetes increased and that of glomerulonephritis decreased during the study period. KT due to glomerulonephritis was a predictor of preemptive KT. Patients with pretransplant dialysis less than 6 months showed increased graft failure risk than preemptive KT in the subdistribution of hazard model for competing risk (aHR, 2.53; 95% CI, 1.09–5.87; $P = 0.031$) and in propensity-score matched analysis (aHR, 2.45; 95% CI, 1.02–5.92; $P = 0.034$); however, pretransplant dialysis ≤ 6 months showed comparable graft survival with preemptive KT in both analyses. Among the patients who underwent LDKT in Korea, the proportion of patients who underwent preemptive KT showed a declining trend over successive years. In preemptive KT, the proportion of diabetic kidney disease as the cause of renal failure showed an increase, while that of glomerulonephritis showed a decrease. Short period of dialysis less than 6 months does not affect graft survival compared to preemptive KT; however, pretransplant dialysis longer than 6 months decreases graft survival. Considering these results, it will be necessary to determine an appropriate transplantation time in patients with ESKD.