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# Clinical characteristics and outcomes of kidney transplantation in autosomal dominant polycystic kidney disease patients

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**Objectives:** Autosomal dominant polycystic kidney disease (ADPKD) is one of the most common genetic kidney disorders. Half of patients develop end-stage renal disease (ESRD) until their sixties. Kidney transplantation (KT) is the best treatment for autosomal dominant polycystic kidney disease (ADPKD). We aimed to investigate clinical characteristics and outcomes of KT in ADPKD patients compared to those in non-ADPKD.

**Methods:** We retrospectively analyzed baseline characteristics, operative findings, and outcomes of ADPKD patients who got KT from 1995 to 2020 in Yonsei University Severance Hospital or Seoul National University Hospital.

**Results:** Among a total of 5716 KT patients, 188 ADPKD patients received KT. Mean age at diagnosis and at KT were 39±11.2 and 55.1±9.7 years, respectively. Hemodialysis (64.7%) was the most common renal replacement therapy, which had been performed for 21.4±28.6 months. Living donor KT (70.1%) were more common than deceased donor KT (29.9%). ADPKD KT patients with low-kidney volume (Mayo class A-C) and high-kidney volume (D-E) were 43.6% and 56.4%, respectively. Hepatic cysts were also found in most patients (84.9%). Nephrectomy of native kidneys was done 110 patients (58.5%). Causes of nephrectomy were lack of space (57.6%), recurrent infection (10.4%), or hemorrhage (4.8%). Most of nephrectomy (86%) was performed simultaneously with KT. Dyslipidemia (59.2%), hypertension (56.8%), new-onset diabetes mellitus (34.4%), infection (42.4%), and de-novo malignancy (6.4%) were common post-transplant complications. Biopsy-proven rejection occurred in 42.4% and graft failure occurred in 2.4% of patients. Patient death occurred in 5.9% due to infection, cardiovascular diseases, or malignancy. Comparison of KT outcomes between ADPKD and non-ADPKD patients are in progress. We also plan to analyze impact of kidney volume, liver cysts, and nephrectomy, on outcomes in ADPKD patients and find other significant prognostic factors.

**Conclusions:** Living donor KT as well as deceased donor KT is a good treatment for ADPKD ESRD patients.