

## Clinical relevance of the Living Kidney Donor Profile Index in Korean kidney transplant recipients

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**Background:** The Living Kidney Donor Profile Index (LKDPI) was developed in the United States to predict graft outcomes based on donor characteristics. However, there are significant differences in donor demographics, access to transplantation, proportion of ABO incompatibility, and posttransplant mortality in Asian countries compared with the United States.

**Methods:** We evaluated the clinical relevance of the LKDPI score in a Korean kidney transplant cohort by analyzing 1,860 patients who underwent kidney transplantation between 2000 and 2019. Patients were divided into three groups according to LKDPI score: <0, 1–19.9, and 20. During a median follow-up of 119 months, 232 recipients (12.5%) experienced death-censored graft loss, and 98 recipients (5.3%) died.

**Results:** High LKDPI scores were significantly associated with increased risk of death-censored graft loss independent of recipient characteristics (LKDPI 1–19.9: hazard ratio 1.389, 95% confidence interval 1.036–1.863; LKDPI 20: hazard ratio 2.121, 95% confidence interval 1.50–2.998). High LKDPI score was also significantly associated with increased risk of biopsy-proven acute rejection and impaired graft renal function. By contrast, overall patient survival rates were comparable among the LKDPI groups.

**Conclusions:** High LKDPI scores were associated with an increased risk of death-censored graft loss, biopsy-proven acute rejection, and impaired graft renal function among Korean kidney transplant cohorts.

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