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## **Analysis of 300 ABO incompatible kidney transplantations in a single center**

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**Objectives:** Kidney transplant (KT) is the optimal renal replacement therapy for patients with end-stage renal disease (ESRD). However, the demand for kidneys continues to exceed the supply. To overcome this problem, efforts to extend the donor pool by including ABO-incompatible kidney transplantation (ABOi-KT) has been increased. The aim of this article was to retrospectively review data on recipients, donor profiles, and clinical outcome in 300 cases of ABOi compatible KT in a single center.

**Methods:** This is a retrospective, observational study using data extracted from medical records. A total of 300 consecutive patients who underwent ABOi-KT at our institution from May 2009 to Nov 2020 were included in this study.

**Results:** From a Kaplan-Meier analysis, overall patient survival after ABOi KT at 1, 3, 5 years were 98.3%, 97.6%, and 97.0%, respectively. The death censored graft survival rates after ABOi KT at 1, 3, and 5 years were 97.2 %, 91.4%, and 86.4%, respectively. Our analysis suggested that overall patient survival, death-censored graft survival, and rejection free graft survival in ABOi KT showed no significant differences in comparison with ABO-compatible KT. ( $p=0.34$ ,  $p=0.41$ , and  $p=0.88$  for each) Interestingly, BKViremia was more commonly observed in ABOi KT compared to ABOc KT (17.0% vs. 9.6%,  $p=0.005$ ). Furthermore, in multivariable analysis, ABO-incompatibility itself increased the risk of BKViremia significantly compared to control. (HR=1.40,  $p=0.03$ )

**Conclusions:** The outcomes of ABOi KTs continually improved during the study period, while the annual number of KTs increased. ABO incompatible KT can be performed safely with successful graft outcomes.