

## KONOS 국가 빅데이터를 이용한 국내 신이식 대기자 및 신이식 환자의 현황과 사망률 연구

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### Current Trends in Waiting List of Kidney Transplantation and Mortality in Asian: a National Population-based Cohort Study using The Korean Network for Organ Sharing (KONOS) Database

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**Background:** Kidney transplantation has been increasing, globally. However, the clinical outcome of wait-listed patients for deceased donor kidney transplantation has not been well described in Asian patients with end-stage renal disease (ESRD).

**Methods:** We reviewed the detailed trends of wait-listed patients and conducted survival analysis in kidney transplant recipients using KONOS (The Korean Network for Organ Sharing) database which is a complete enumeration survey. We compared the outcomes according to the transplant era as followings: 2000-2004, 2005-2009, 2010-2014.

**Results:** From 2000 to 2014, a total of 34,843 patients registered in the waiting list, and 5,164 patients received transplantation from deceased donor. The proportion of deceased donor kidney transplantation has increased up to 45.9% in 2013 from 4.6% in 2000. The number of waiting list for kidney transplantation has increased continually more than 3,000 ESRD patients per year. The mean waiting time of deceased donor kidney transplantation was 54.9 months and has been getting longer. A total of 18,687 patients were remained on the waiting list until Jan 2015. Recently, diabetic nephropathy was the leading cause of primary disease on the waiting list, and the mean age of new registrants was getting older. The crude annual mortality rate during waiting time was 8.4%. The survival analysis revealed that there was no difference of patient survival according to the transplant era in kidney transplant recipients. However, the cumulative survival rate of the recently registered wait-listed patients was significantly improved even though they were older and had more proportion of diabetes ( $p < 0.001$ , HR 0.51 95% CI 0.46-0.57).

**Conclusion:** In Korea, deceased donor kidney transplantation has increased. Donor organ is still seriously insufficient, therefore, it is necessary to encourage organ donation. In addition, more meticulous management needs to be provided to wait-listed patients.

**Key Words:** 신장이식, 이식대기자, 생존율

Kidney transplantation, Waiting list, Patient survival