

## 신장췌장 동시이식의 임상상 및 성적

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### The Outcomes of Simultaneous Pancreas Kidney Transplantation and its Comparison with Kidney Transplantation Alone

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**Background:** The outcomes of simultaneous pancreas-kidney transplantation (SPK) have improved over the past decades with advance in surgical techniques and immunosuppressive agents. However, it is not established whether outcomes of SPK is similar between type I and II diabetes mellitus (DM), and whether SPK has better outcomes than living-donor (LDKT) or deceased-donor kidney transplantation (DDKT).

**Methods:** We retrospectively reviewed the DM patients who received SPK, DDKT or LDKT, and DM patients who were on waiting list in Seoul National University Hospital, between 2000 and 2011.

**Results:** Among 356 DM patients, 70, 28, and 31 underwent LDKT, DDKT, and SPK, respectively, while 227 patients had still been on the waiting list. The mean age in the SPK group was 43.0±10.7 year, and 64.5% were male. Eleven (35.5%) patients had of type I DM. Immunosuppressive regimens consisted of basiliximab induction followed by prednisolone, tacrolimus, and mycophenolate mofetil. Enteric drainage was used for pancreas graft in all cases. Most common complications were hematoma (16.1%), infection (16.1%), intestinal perforation (12.9%) and peri-pancreatic fluid collection (12.9%). Twelve (38.7%) and 4 (12.9%) patients had reoperation and percutaneous drainage, respectively. The mean duration of hospital stay was 44.9±23.6 days, which became longer in patients with postoperative complications. Acute rejection occurred in 19 patients at median follow-up of 50.5 months. Five-year patient survival rate, kidney graft survival rate, and pancreas graft survival rate were 96.8%, 92.6%, and 86%, respectively. Although 1-year eGFR after transplantation was higher in type I DM patients than in type II DM patients, the difference was not significant after adjustment for age.

Adjusted relative risk for death of patients on the waiting list was 2.576 (95% CI: 1.21-5.50; p=0.014), compared with transplanted groups, while there was no difference in patient survival rate among SPK, LDKT, and DDKT. Five-year kidney graft survival rates of SPK, LDKT, and DDKT were 90%, 91%, and 74%, respectively. However, there was no significant difference in adjusted graft survival rate. There was also no difference in 1-year eGFR among 3 groups after adjustment for recipient age, donor age, and donor eGFR. One-year HbA1c was lower in SPK (5.65%); however there was no difference between LDKT and DDKT (8.21% vs. 7.86%).

**Key Words:** 신장췌장동시이식, 당뇨, 신장이식

SPK, Diabetes mellitus, Kidney transplantation