

Pancreas Transplantation in Korea

Duck-Jong Han

Emeritus Professor, Department of Surgery, Asan Medical Center

Background: Diabetes mellitus has been treated with oral diabetic drug and/or insulin. However the increased morbidity and mortality even under insulin treatment is largely attributable to the diabetic complications that occur over time. Pancreas transplantation (PT) is an ultimate treatment of insulin requiring diabetes. Currently much improvement in patient and graft survival, and decrease of post-operative morbidity have been brought by technical refinement, better immunosuppressants, and better post-operative management. We hereby report the outcomes of PT performed in Korea.

Methods: All the recipients who underwent deceased donor or living donor PT from July 1992 to December 2014 in Korea were enrolled in this study. We reviewed retrospectively. We analyzed graft and patient survival with Kaplan-Meier method.

Results: Totally 415 cases of pancreas transplantation have been performed from July 1992 to December 2014 at 13 transplant centers in Korea. Indication for pancreas transplantation was type I diabetes in 340 (82%) patients and type II diabetes in 35 (18%) patients. Pancreas donor was deceased donor in 395 cases (95.2%) and living donor in 20 cases (4.8%). Type of transplantation was simultaneous pancreas kidney transplantation in 262 recipients (63.1%), pancreas transplantation alone in 105 (25.3%), and pancreas after kidney transplantation in 48 (11.6%). Median follow-up duration was 96.0 months post-transplantation (range 0-269 months). Overall patient survival rates at 1, 5 and 10 years were 92.3%, 89.0%, and 84.8%. Overall graft survival rates at 1, 5, and 10 years were 80.1%, 69.0%, and 69.9% respectively. Since 2000, Overall graft survival rates at 1, and 5 years were 85.8%, and 73.1%.

Conclusion: Considering the quality of life and long-term patient survival, PT can be an effective treatment strategy in non-obese diabetic patients requiring insulin regardless of type of diabetes. Recently graft outcomes have been improved and post-operative morbidity decreased.