

Intestinal transplantation; Japan experience

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INTRODUCTION

The management of intestinal failure (IF) has improved dramatically in the past few decades. However, patients with irreversible IF depending on parenteral nutrition (PN) still suffer numerous complications. Intestinal transplantation (ITx) can significantly improve their prognosis and quality of life (QoL). We report on the impact of ITx for patients with IF in Japan based on data from the Japanese intestinal transplant registry.

METHODS

Intestinal transplantations have been performed in Japan since 1996. Standardized forms were sent to all known ITx programs, asking for information on ITx performed between 1996 and December 31, 2014. Requested data included age, sex, date of birth, date of transplantation, pre-transplant status, underlying disease, procedure, ABO blood type, immunosuppression regimen (induction and maintenance therapy), and post-transplant status (PN requirement, intravenous [IV] fluid requirement, and daily life restrictions). All programs responded about all cases. Patient and graft survival estimates were obtained using the Kaplan-Meier method and analyzed with the Wilcoxon statistic.

RESULTS

Five institutions provided data on 26 grafts in 23 patients. There were 13 cadaveric and 13 living related donor transplants. Causes of IF included short gut syndrome ($n = 9$), intestinal motility function disorders ($n = 13$), re-transplantation ($n = 3$), and other ($n = 1$). Most patients ($n=23$) received isolated ITx. There was only 1 case of simultaneous liver- intestinal transplantation from 2 living related donors. Two patients received sequential ITx after living donor liver transplantation. The overall 1- and 5-year patient survival rates were 87% and 68%, respectively. In cases ($n = 17$) after 2006, the 1-year patient survival rate was 93%, and the 5-year survival rate was 78%. One- and five-year graft survival rates were 80% and 59%, respectively. More than 80% of all current survivors discontinued PN.

CONCLUSIONS

ITx has become an effective therapy for patients with IF who cannot tolerate PN. After 2006, patient and graft survival rates approached rates associated with standard treatment for end-stage IF. Further improvements are expected with early referral due to suitable donor organ and pre-transplant management.