

Intestinal Transplantation-Taiwan Experience

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Purpose: Intestinal transplantation has recently become an accepted therapy for selected patients with short-bowel syndrome or other forms of irreversible intestinal failure. We initiated our first small intestinal transplantation program after approved by JIRB of DOH since July 2007. After finishing the clinical trial, intestinal transplantation has recently become an accepted and national health insurance coverage therapy for selected patients with short-bowel syndrome in Taiwan.

Methods: From Oct. 2007 to Nov. 2015, 18 isolated small intestinal transplantation were performed in 17 cases. Among them, six were children. The underlying disease for intestinal failure were motility disorder in 5, short bowel syndrome in 12. The indications for bowel transplantation including frequent catheter-related sepsis in 3, difficult line insertion with major vein thrombosis in 5, liver function impairment in 1 and ultrashort bowel in 8 cases. Patient and graft survival estimates were obtained using the Kaplan-Meier method.

Results: All cases tolerated the isolated small bowel transplantation with 100% surgical survival(30days after operation). Their mean age is 33.5 ± 22.8 years (from 2Y1M to 65Y). Their mean body weight was 43.3 ± 18.2 kg. The mean waiting time was 294.7 ± 284.9 days. The mean cold ischemia time was 312.8 ± 71.1 mins and warm ischemia time was 53.8 ± 27.8 mins. The mean hospital stay was 51.4 ± 11.2 days. For the graft functioned cases, mean TPN wean-off on 32 days after operation. The overall 5 year patient survival was 70.6% with the longest survival for more than 8 years. In cases (n=12) after clinical trial since 2011, the patient survival were 100% in 1 year and 83.3% in 3 years.

Conclusion: It is the first series of small bowel transplantation in Taiwan and the outcome of small bowel transplantation is promising.