

BELGIAN MULTICENTRE EXPERIENCE WITH INTESTINAL TRANSPLANTATION. L.J. Ceulemans (1), A. De Roover (2), O. Detry (2), R. Troisi (3), X. Rogiers (3), R. Reding (4), J. Lerut (4), D. Ysebaert (5), T. Chapelle (5), D. Monbaliu (1), J. Pirenne (6). (1) Intestinal Transplant Programme, University Hospitals Leuven, KU Leuven, Leuven, Belgium ; (2) Abdominal Surgery And Transplantation, CHU Sart Tilman, Liège, Belgium ; (3) General Hepato-Biliary Surgery And Transplantation, Ghent University Hospital, Gent, Belgium ; (4) Abdominal Surgery And Transplantation, Université Catholique de Louvain, City of Brussels, Belgium ; (5) Abdominal Surgery And Transplantation, Antwerp University Hospital, Antwerpen, Belgium ; (6) Intestinal Transplant Programme, University Hospitals Leuven, KU Leuven, Zonhoven, Belgium.

Introduction : Compared to Total Parenteral Nutrition (TPN), Intestinal Transplantation (ITx) is perceived by gastroenterologists as a surgically, medically and immunologically challenging procedure whose results remain inferior to other organ Tx. For this reason, ITx has been relatively rarely applied in Belgium (versus certain other European and North American centers).

Aim : Aim of this multicenter review was therefore to analyse the overall Belgian experience (activity, indications, results) with ITx.

Methods : All Belgian Tx centers took part in this Belgium Liver Intestine Transplant Committee survey. Patient-specific data were entered in the standard ad hoc international ITx registry form. Patient/graft survival was calculated (Kaplan-Meier). Nutritional (TPN) independence and Quality of Life (QoL) (Karnofsky score) were analyzed.

Results : Between 03/1999 and 11/2012, 21 ITx were performed in 20 patients (1 reTx), representing a yearly activity of 1.6 Tx, distributed among 5 centers : KULeuven (12), ULg (5), UZGhent (2), UCLouvain (1), UZA (1). Median age was 38 years (8 months – 56 years). 10 recipients were male and 10 female. 5 were pediatrics (< 18 years) and 15 adults. Indications were anatomical or functional short bowel syndrome (SBS) : intestinal ischemia (5), volvulus (5), Crohn (2), chronic intestinal pseudo-obstruction (2), splanchnic thrombosis (2), Churg-Strauss (1), necrotizing enterocolitis (1), microvillus inclusion (1), intestinal atresia (1) and chronic rejection after first ITx (1). All patients had severe complications of SBS and TPN. 9 patients received an isolated ITx (*plus* kidney Tx in 2 ; *plus* pancreas Tx in 1) ; 10 received a combined liver and ITx ; 2 received a multivisceral Tx. At time of Tx, 11 patients were hospitalized and 10 at home. 20 grafts were procured from deceased donors ; one segmental intestinal graft was procured from a living donor. ABO blood group was identical in 63% and compatible in 37%. Median cold ischemia time was 5 hours 30' (3 hours 17' - 9 hours 31'). All patients received tacrolimus-based immunosuppression. Basiliximab (anti-IL2 receptor antibody) induction was administered in 16 patients. One center transfused donor-specific blood in 11 patients as part of their immunomodulatory protocol. 5-year patient and graft survival is 59% and 55.6%, respectively. 8 patients died : 6 to sepsis, 1 to intracerebral hemorrhage and 1 sudden death remained unexplained. 1 patient developed postTx lymphoma. 2 chronic rejections occurred for which one reTx was performed. Of 12 survivors, 11 are nutritionally independent (TPN-free) ; in 10, QoL is excellent (Karnofsky score > 90%).

Conclusion : ITx has come of age in Belgium. A 59% 5-year patient survival is achieved and is similar to results reported by the International ITx registry. ITx is not yet an alternative to TPN in stable patients, but a life-saving option that should be considered early in selected patients with reduced life expectancy due to significant complications from TPN and bowel failure.