

ORGAN DONATION AND PRESERVATION

Organ retrieval

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Pancreas organ retrieval is standardised in the UK and is carried out by dedicated abdominal organ retrieval teams. Donation after brain death (DBD) donors constitute 75% of all pancreas donors with donation after circulatory death (DCD) donors making up 25%. The pancreas can be retrieved either alone or en bloc with the liver. If the liver and pancreas are retrieved en bloc the retrieval surgeon separates the organs, ensuring that there is 10 /uni00A0 mm of PV and an adequate length of splenic artery (SA) and superior mesenteric artery (SMA) for reconstruction. The bifurcation of the iliac vessels is sent with the pancreas to facilitate a vascular Y-graft construction (Figure 90.1), creating a single arterial inflow . Only around 50% of pancreases that are retrieved with the intention of transplantation are actually transplanted; this is a much higher discard rate than occurs in Folkert O Belzer , 1930–1995, pioneering transplant surgeon who was Chairman of the Department of Surgery , University of Wisconsin, USA, along with Jan Wahlberg (Uppsala, Sweden) and Rutger Ploeg (Leiden, the Netherlands) developed University of Wisconsin solution. James H Southard , contemporary , Emeritus Professor, Department of Surgery , University of Wisconsin, USA, co-inventor of the University of Wisconsin solu tion with Belzer. condition of the pancreas is frequently suboptimal owing to fatty infiltration or fibrosis, features that are associated with a poorer outcome. Also, injury to the pancreas during retrieval is much more common than in other organs: it is easily damaged and the consequences of even a relatively minor parenchymal injury can be severe, with postoperative leakage of exocrine secretions. Acceptance criteria for pancreases varies between centres and is usually related to donor age, BMI, alcohol intake and lifestyle factors. Other adverse donor and retrieval features that impact acceptance rates include: a prolonged agonal phase in DCD donors, evidence of hepatic or pancreatic ischaemic injury (raised transaminases, amylase and lipase) and complex vascular anatomy .

Internal iliac artery Portal vein anastomosis with Ligated bile duct splenic artery Common iliac artery External iliac anastomosis section of Y-graft with SMA Figure 90.1 The inferior border of the donor pancreas prepared for implantation demonstrating a completed vascular reconstruction. The surgical forceps are holding the cut end of the donor common iliac artery and the completed anastomoses between the donor external iliac artery and the superior mesenteric artery (SMA) and the donor interior iliac artery with the splenic artery are demonstrated (blue vascular suture).