

Technical Aspects Involved in the Harvesting and Preservation of the Pancreas Used for Pancreatic Islet Allotransplantation

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Abstract

The pancreas procurement from brain-dead donors used for pancreatic islet isolation and transplantation, was analyzed between 2007-2012. The pancreas was transported to the Fundeni Clinical Institute and the islet isolation process was performed in the Cell Therapy Laboratory. There were 20 en bloc pancreas-duodenum-spleen procurement during multi-organ harvesting. Eighteen pancreata were used for islet isolation and two were used for whole pancreas transplantation. One pancreas was used for whole pancreas transplant alone and the other one was used for simultaneous pancreas and kidney transplantation. Donor age ranged between 12 and 61 years, with a median age of 35 years old. The donors were 9 females and 11 males. The causes of death were in 8 cases – brain injury, in 7 cases – aneurism rupture, and in 5 cases – stroke. The donors' blood group was A(II) in 11 cases, O(I) in 7 cases, and B(III) in 2 cases. The calculated BMI of the donors ranged between 15.6 and 27.8, with a median value of 24.1. The median calculated Vinkers score for our study group was 11. Cold ischemia time ranged between 1.5 and 8 hours, with a median value of 5 hours.

Key words: pancreas procurement, pancreas preservation, pancreatic islet transplantation, pancreatic donor, diabetes mellitus

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