Acute cellular and antibody-mediated rejection of the pancreas allograft: Pathology, risk factors and outcomes

Jose R Torrealba
University of Texas Southwestern Medical Center, USA

The histopathologic parameters associated with acute cellular rejection (ACR) of the pancreas allograft have been well defined and have undergone modifications over the years to reflect the latest diagnostic and prognostic updates. Antibody-mediated rejection, in the other hand, is a relatively recently identified entity that we are yet learning how to diagnose and manage. This presentation will cover both the latest Banff approved diagnostic criteria for ACR and AMR with emphasis on our own research findings on incidence, risk factors, pathologic diagnosis, treatment and outcomes of pancreas AMR. Briefly, we have found that pancreatic AMR occurred in about 10% of patients by 1-year post-transplant. The most important risk factors associated with AMR included non-primary simultaneous pancreas-kidney (SPK) transplant, primary solitary pancreas (PAN) transplant and race mismatch. After pancreas rejection, patient survival was 100% but 20% of pancreas grafts failed within one year. Graft survival after acute cellular rejection (ACR), AMR and mixed rejection was similar. Of biopsies that stained >5% for the AMR surrogate marker C4d, 80% were associated with increased Class I donor specific antibodies (DSA). AMR occurs at a clinically significant rate after pancreas transplantation, and the diagnosis should be actively sought by staining the allograft biopsy using C4d staining and screening for DSA levels in patients with graft dysfunction, especially after nonprimary SPK and primary PAN transplantation.

Biography

Jose R Torrealba has completed his MD in 1994 from the Central University of Venezuela. He then did a Post-doctoral fellowship in Molecular Biology at the University of Wisconsin, in Madison, Wisconsin and obtained his degree in Anatomic and Clinical Pathology from the University of Wisconsin. He specialized in Immunopathology of Transplantation at the University of Toronto, Canada in 2005. He held a job as Assistant Professor of Pathology at the University of Wisconsin until 2010 and currently is the Dr. George and Anne Race Distinguished Professor of Pathology at the Department of Pathology, UTSW Medical Center in Dallas, Texas.

jose.torrealba@utsouthwestern.edu

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