

PANCREATIC ARTERIOVENOUS FISTULA FOLLOWING MULTIPLE ALLOGRAFT BIOPSIES

Raghuveer Kura, Osun Kwon, Nivedita Nagam. Akhtar Khan*.
Division of Nephrology and Division of Transplant surgery*,
Departments of Medicine and Surgery. Penn State University Hershey
Medical Center and Penn State College of Medicine, Hershey, PA.

Rejection is common following pancreatic transplantation and is the largest single cause of graft failure, despite superior anti-rejection regimens. Biopsies are the best way of diagnosing graft rejections and are performed under local anesthesia with the help of real-time ultrasound guidance and typically an 18-gauge needle biopsy device is advanced through the peritoneum into the allograft for a core biopsy. Vascular anomalies are one of the few complications of biopsies and are very rare.

We report a case of Arterio-Venous (AV) fistula developed after pancreatic biopsies. The patient is a 58-year-old gentleman with history of end-stage renal disease due to diabetic nephropathy who underwent simultaneous kidney pancreas transplant a year ago with prompt graft functions. The patient during the course of one year developed multiple pancreatic rejections requiring a total of 6 biopsies. Routine duplex ultrasounds of the pancreas done for elevated lipase showed in the pancreatic vein thrombus for which an MRA was performed. The MRA showed widely patent arterial blood supply to pancreas and but the venous flow could not be identified for which an abdominal venogram was done that showed moderate to low flow arterial venous fistula from a pancreatic arterial branch to a vein.

The use of pancreatic biopsies to guide treatment after transplantation is an important tool in the detection and treatment of rejection. Due to close proximity of the vasculature with the graft, there is a high risk that a fistula can be created during a biopsy. Ultrasound with addition of color flow and spectral Doppler imaging is essential for evaluating vascular integrity and vascular complications, especially in the immediate postoperative period. However, Magnetic resonance angiograms should be considered to assess the vascular anatomy if the sonographic findings are indeterminate, or clinical suspicion remains high.