Role of CT Arteriography and Venography in Imaging of Pancreatic Transplants

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Disclosure

GENERAL ELECTRIC HEALTHCARE
- CONSULTANT
Pancreas Transplants in United States

- 100 CENTERS
- 1400 PROCEDURES ANNUALLY
Pancreas Transplantation

**CLINICAL RATIONALE**

- IMPROVED QUALITY OF LIFE AT EXPENSE OF A MAJOR SURGICAL PROCEDURE AND LIFE LONG IMMUNOSUPPRESSION

*White SA et al: Lancet 2009;373: 1808-1817*
Surgical Techniques

ARterial Anastamosis
- Y Graft

Venous Drainage
- Systemic (Iliac)
- Portal (SMV)

Exocrine Secretion
- Bladder
- Enteric
Figure 1. Drawing shows the anatomy of PAK transplantation, with bladder drainage and detailed depiction of the aortic patch containing the celiac (black arrow), splenic (sp), and superior mesenteric (*) arteries attached to the recipient common iliac artery.
Illustration of systemic-enteric pancreatic transplantation procedure where exocrine secretions drain into small intestine

CURVED PLANAR REFORMATION
Figure 2. Diagram illustrates the portal-enteric technique for pancreatic transplantation.

Nikolaidis P et al. Radiographics 2003;23:939-949
Complications

- **VASCULAR**
  - ARTERIAL THROMBOSIS / PSEUDOANEURYSMS
  - VENOUS STENOSIS / THROMBOSIS

- **ENTERIC**
  - LEAK, OBSTRUCTION

- **PANCREATITIS**
SPLENIC ARTERY OCCLUSION
Figure 14b. Pseudoaneurysm.

Nikolaidis P et al. Radiographics 2003;23:939-949
Splenial Vein Thrombosis
MESENTERIC/ PORTAL VEIN PATENCY
Image Guided Intervention

- ARTERIAL EMBOLISATION
- VENOUS THROMBOLYSIS / THROMBECTOMY
Summary

PANCREATICS TX IMAGING
ANATOMY
- VASCULAR, ENTERIC
IMAGING
- SONOGRAPHY AND CT
COMPLEMENTARY