

## Scientific Session II (cont.)

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### OUTCOMES OF TOTAL PANCREATECTOMY AND ISLET AUTOTRANSPLANTATION IN YOUNG CHILDREN

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#### **Purpose:**

Total pancreatectomy and islet auto transplantation (TP-IAT) is increasingly used for treatment of childhood pancreatitis that fails medical, endoscopic, and surgical drainage/resection procedures. However, since most of the published case series are in teenagers, centers are often reluctant to offer surgery to younger children due to unknown outcomes. With ongoing pain, these children can become narcotic-dependent, miss school, and have poor quality of life. Some become TPN or tube-feed dependent to prevent precipitation of pancreatitis attacks. As a large center performing TP-IAT, we sought to determine the outcomes in younger children receiving TP-IAT.

#### **Methods:**

Among 106 pediatric TP-IAT recipients at our center, 17 children (9 female) met inclusion criteria of age <8 years at time of surgery. Procedures were performed from 2000-2014. Pancreatitis was attributed to genetic mutations in 14/17. TP-IAT recipients were followed prospectively with Quality of Life questionnaires including assessments of pain and narcotic use and laboratory evaluations including HbA1c and mixed-meal tolerance tests, both preoperatively and at regular intervals thereafter. Median follow up was 2.2 years (IQR 1.5 - 4.3).

#### **Results:**

There was no perioperative mortality. Surgical complications requiring reoperation occurred in 4 patients for bowel obstruction (n=2), intraabdominal abscess/wound dehiscence (n=1), and bile leak (n=1). All patients had pain relief and were off narcotics by 6 months post-surgery. Thirteen (76%) achieved insulin independence (versus 41% in older patients) (p=0.004). Median HbA1c after TP-IAT was 5.9% (IQR 5.6-6.3%). All patients reported improved Quality of Life, return to full-time school, and resumption of oral diet.

#### **Conclusions:**

Young children who undergo TP-IAT for chronic pancreatitis have successful outcomes and may even fare better than older patients. Though further studies are needed to confirm these findings, young age should not prevent early referral for TP-IAT in patients who would otherwise be enduring pain and poor quality of life.