

**M1256****Predictors of Response to EUS-Guided Celiac Plexus Blockade for Abdominal Pain in Patients with Chronic Pancreatitis**

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**Background:** The pain from chronic pancreatitis can be debilitating for patients and a difficult symptom for physicians to treat. Celiac plexus blockade (CPB) is utilized for palliation of refractory abdominal pain from chronic pancreatitis. Existing studies have shown only a marginal efficacy of CPB for chronic pancreatitis, and only two studies have specifically investigated predictors of response to CPB. **Aim:** To evaluate specific patient characteristics associated with a clinical response to EUS-guided CPB in patients with CP and abdominal pain. **Patients and Methods:** Patients presenting for EUS-guided CPB for CP from 9/05-10/06 were identified by retrospective chart review. The study included patients with pain >3 months duration and objective evidence of CP, defined as at least one of the following: pancreatic endocrine or exocrine insufficiency, >4 criteria for CP on EUS, high suspicion of CP by ERCP, abnormal secretin stimulation study, or histologic evidence of CP. Clinical response to CPB was defined as a >3 point drop on a 10-point VAS scale or >30% improvement in baseline pain scores. Variables analyzed included pre and post procedure pain scores, morphine equivalents, EUS criteria for CP, CPB formulation, use of general anesthesia during CPB, prior CPB, alcohol history, illicit drug use, psychiatric history, chronic pain syndromes, prior pancreatic surgery, and histologic diagnosis of CP. **Results:** 44 EUS-guided CPBs were performed on 31 patients (11 male, mean age = 47). A significant improvement in pain score occurred in 20/31 (65%) patients. The post-procedure pain scores decreased on average by 48%. The mean duration of pain reduction was 11.3 days (range 0-80). Predictors of response included prior pancreatic surgery (odds ratio (OR) 8.36,  $p = 0.02$ ), histologic diagnosis of chronic pancreatitis (OR 4.19,  $p = 0.04$ ), and higher dosage steroid formulation (OR 5.0,  $p = 0.05$ ). Responders tended to have higher pre-procedure narcotic requirements ( $p = 0.09$ ). Non-responders tended to have longer duration of pain ( $p = 0.18$ ), history of prior alcohol abuse ( $p = 0.19$ ), and chronic pain syndromes ( $p = 0.07$ ). Of standard EUS criteria, only lobularity showed a trend toward relevance as a predictor of response ( $p = 0.19$ ). **Conclusions:** Our study demonstrated that previous pancreatic surgery and histologic diagnosis of chronic pancreatitis were strong predictors of clinical response to EUS-guided CPB. Additionally, increasing dosage of corticosteroid formulation led to significant increases in response. More work is needed in delineating which patients with CP are more likely to benefit from EUS-guided CPB. Further prospective studies are warranted.

**M1257****The Efficacy of Endoscopic Ultrasound Guided Choledochoduodenostomy (EUS-CDS) in Five Cases of Obstructive Jaundice Caused by Ampullary or Lower Biliary Duct Obstruction with a Special Reference to Stent Patency**

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**Background and Study Aims:** Endoscopic biliary drainage may be unsuccessful in some patients. The alternative method of percutaneous transhepatic biliary drainage (PTBD) has a risk of complications. Recently, endoscopic ultrasound (EUS) guided biliary stent placement has been described in patients with malignant biliary obstruction. We described our 5 cases-experience of EUS guided biliary drainage from the first portion of the duodenum with a special reference to stent patency. **Patients:** Five patients who underwent EUS-CDS from the first portion of the duodenum from 2003 to 2005 were analyzed. The sex ratio of the patients was 3:2 and the mean average age was 78 year old with a range of 61 and 83. The patients consisted of three cases of pancreatic head cancer and two cases of ampulla of Vater cancer. **Method:** Informed consent from 5 patients was obtained for EUS-CDS. Using a convex linear array echoendoscope the markedly dilated extra-hepatic bile duct was visualized at the level of the duodenal bulb. EUS-guided puncture of the dilated extra-hepatic bile duct was performed with the needle knife, and then exchanged the guide wires (0.035 inch, 450 cm). Tapered biliary dilator catheters of 7 French and 9 French in size were inserted and removed in order to dilate the tract over the guidewire. Finally, an 8.5 Fr. straight biliary stent was inserted through the choledochoduodenostomy site into the extrahepatic bile duct. When the stent was occluded during the follow-up period, it was removed by duodenoscopy using a basket catheter. A guide wire (0.035 inch, 450 cm) through the ERCP catheter was inserted deeply from the choledochoduodenal fistula into the intrahepatic biliary ducts under fluoroscopy. A new stent an 8.5 Fr. straight biliary stent, was inserted over the guide wire. Finally, the guide wire was removed. **Results:** Stent insertion was technically successful in all 5 patients. The procedure was also clinically effective in relieving jaundice in all cases. One patient developed pneumoperitoneum one day after procedure, which resolved conservatively with fasting and antibiotics in few days. Early stent occlusion occurred in two patients after 2 and 4 weeks, respectively, which made a repeat procedure with stent exchange easily. Average patency of the stents reached more than 180 days, 95% C.I. (111-249). **Conclusion:** EUS-CDS from first portion of the duodenum is a feasible and safe, and become alternative to PTBD for drainage of obstructed biliary system, in the future.

**M1258****Single Operator EUS-Guided Cholangiopancreatography (EUSCP) for Difficult Pancreaticobiliary Access**

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**Background:** Intradiverticular papillae, periampullary tumor infiltration, and obstructing downstream pancreatic strictures and stones may lead to therapeutic ERCP failure. When conventional ERCP methods have failed, EUSCP may be an adjunct for difficult pancreaticobiliary access. Limited data exists on a single-operator technique. **Methods:** Transenteric bile duct (BD) or pancreatic duct (PD) puncture was attempted using a 19G or 22G FNA needle followed by contrast injection and antegrade placement of a 0.035" or 0.018" wire ideally across the papilla for rendezvous ERCP. **Results:** 9 patients (5F, 4M, mean age 64) underwent attempted EUSCP after failed attempts at ERCP for BD (N = 6) or PD (N = 3) access. Anatomical reasons for failed ERCP included: intradiverticular papillae (N = 4), periampullary tumor infiltration with duodenal compression (N = 2), and downstream PD obstruction from chronic pancreatitis (N = 3). Interventions at time of EUS-guided cholangiogram: sphincterotomy and stone extraction (N = 1), transpapillary stent for malignant obstruction (N = 2), transduodenal stent (N = 1), sphincterotomy for papillary stenosis (N = 1), and failed attempt to puncture the BD due to angulation (N = 1). Antegrade transpapillary wire placement was not possible in the papillary stenosis case but ERCP was facilitated by EUS-cholangiography enhancing visualization of the papilla on the rim of a diverticulum. EUS-cholangiography also served as a fluoroscopic landmark for retrograde cannulation in the case of periampullary tumor infiltration. The patient with transduodenal stent placement had an intradiverticular papilla with obstructing downstream biliary stones that prohibited transpapillary wire placement. She required PTC and rendezvous ERCP for sphincterotomy and stone extraction. Interventions at time of EUS-guided pancreatography: transgastric pancreatic duct stent for decompression (N = 1), rendezvous ERCP via the minor papilla with sphincterotomy, pancreatoscopy with electrohydraulic lithotripsy, and stone extraction (N = 1), retrograde stricture dilation and stent placement for chronic pancreatitis (N = 1). Overall, 6/9 (67%) had successful retrograde ductal access at the same procedure as EUSCP. **Conclusions:** 1. In this preliminary series, single-operator EUS-guided cholangiopancreatography is successful in gaining retrograde access for difficult ERCP in the majority of patients with obstructed ducts. 2. Obstruction from papillary stenosis or stones may limit successful antegrade placement of the wire across the papilla but EUSCP may enhance endoscopic visualization of the papilla and/or serve as a fluoroscopic landmark to facilitate retrograde cannulation.

**M1259****Prospective Trial Comparing Solid State Catheter (SSC) and Water Perfusion Triple Lumen Catheter (TLC) for Sphincter of Oddi Manometry (SOM)**

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**Introduction:** SOM is the gold standard for diagnosis of Sphincter of Oddi dysfunction (SOD). Numerous studies have established ranges of normal values as well as typical readings in pathologic conditions. All these studies are done using the water perfused TLC. A recently developed SSC can have potential advantages. It is simpler and easier to use, has fewer components and is less prone to artifact. One can also speculate that using the SSC may lead to decreased risk of post-ERCP pancreatitis since no water is infused into the pancreatic duct during pressure measurements. To date no data exist on the accuracy of the measurements with the SSC. Concerns have been raised whether the pressures obtained by TLC are reproducible by SSC. The two catheters have different diameter (TLC 4.5 mm, SSC 4.0 mm). Water is infused via the TLC into the biliary and/or pancreatic duct and that may lead to increased intraductal pressure and therefore increased SOM pressure readings. The manufacturer of the SSC did not conduct clinical studies to establish equivalence with previously marketed devices. The goal of this study was to evaluate the accuracy of the SSC using TLC as gold standard. **Methods:** This is prospective crossover trial. Each patient, serving as their own control, underwent SOM with TLC and SSC during the same procedure. The order of catheter use alternated in sequential patients. The basal sphincter pressure was measured in the biliary, pancreatic or both sphincter segments as clinically indicated. In each sphincter segment 6 sustained (>30 sec) basal pressure measurements with each of the two sensors (distal and proximal) were obtained (total of 12 measurements per sphincter segment). The manometry was then repeated in the same fashion with the alternative catheter. **Results:** A total of 378 pressure measurements in 47 sphincter segments (24 biliary, 23 pancreatic) in 30 patients (M 4, F 26) were obtained. Manometry was abnormal (basal pressure >40 mm Hg) in 10/24 biliary sphincters and 12/23 pancreatic sphincters. There was complete agreement on the final result of the SOM (normal/abnormal) between the TLC and SSC (accuracy 100%). To evaluate whether there was a catheter effect on the measurements a split-plot analysis was performed. The p-value for this test 0.9966 was extremely insignificant consistent with no catheter effect on the measuring. 20/30 patients received pancreatic stent. 5/30 patients developed mild post ERCP pancreatitis. **Conclusion:** This prospective crossover trial shows that the solid state manometry catheter accurately measures pressures during SOM.