

A New Endoscopic Pancreatic Function Test (ePFT) Using Synthetic Porcine Secretin in the Evaluation of Chronic Abdominal Pain (CAP) and Suspected Chronic Pancreatitis (CP)

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BACKGROUND. Gastroenterologists (GE) commonly see patients (pts) with CAP and suspected CP. Pancreatic function tests (PFT) are the most reliable methods to diagnose or exclude CP in pts without obvious radiologic changes, or risk factors (ETOH abuse, acute recurrent pancreatitis, sphincter of Oddi dysfunction, hereditary) for the disease. Synthetic porcine secretin, an identical 27 amino acid peptide to the biologic form, is available for exocrine function testing. Current PFT methods are cumbersome, time inefficient and impractical. We developed a simple, purely endoscopic function test. AIMS. Examine the utility of ePFT in the evaluation of pts with CAP. **METHODS.** 3 groups of pts studied: 1) advanced CP (CP), 2) chronic abdominal pain with risk factors (CAP+RF), and 3) chronic abdominal pain without risk factors (CAP-RF). Endoscopic pancreatic function test (ePFT) protocol: 1) standard upper endoscopy, 2) IV push secretin (0.2 mcg/kg), 3) duodenal fluid aspiration through the scope into a trap at 0, 15, 30, 45, 60 minutes after secretin injection, 4) fluid analysis for $[\text{HCO}_3^-]$ on lab autoanalyzer. **RESULTS.** 15 pts: 7 CP, 5 CAP+RF, 3 CAP-RF (Graphic). ePFT clearly separates CP pts from CAP-RF pts ($p < 0.05$, ANOVA). CAP+RF pts have peak $[\text{HCO}_3^-] < 80$ mEq/L and an attenuated secretory curve characteristic of pancreatic insufficiency when compared to CP pts. **CONCLUSIONS.** 1) A simple ePFT using synthetic secretin can distinguish pts with known CP from CAP pts without CP. 2) ePFT is a practical and accurate method that can be performed by clinical GE. **CLINICAL IMPLICATION:** ePFT may decrease the need for invasive procedures in low risk pts with chronic abdominal pain.

