

### DDW 2021 Updates: Chronic Pancreatitis & Exocrine Pancreatic Insufficiency

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#### DDW 2021

- ▶ 3 abstracts
- ▶ Pain and Chronic Pancreatitis 2
- Exocrine Pancreatic Insufficiency Management 1

#### Background - Pain & Chronic Pancreatitis

- Abdominal pain affects > 80% of patients with Chronic Pancreatitis
- Etiology and Mechanisms of pain are poorly understood
- Pain perception: subjective
- Management approach:
  - Medical therapy (anti-inflammatory, neuromodulators, opiates)
  - Endoscopic therapy (drainage, duct(s) obstruction, celiac plexus block)
  - Surgical therapy (Segmental Resection, Total Pancreatectomy with Islet Auto Transplantation)

Abstract #650: Sensitization of Central Pain Pathways is Associated with a Poor Outcome to Invasive Treatment for Pain in Patients with Chronic Pancreatitis: A Pilot Study

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#### Background

- Pain measurement is subjective and difficult to track over time.
- Unclear why some patients have refractory pain.
- Novel measurements of pain that incorporate pain phenotypes may help identify etiology and determine best appropriate pain management strategies

## Pancreatic Quantitative Sensory Testing P-QST

- Novel test:
  - Repetitive Pinprick of 5 different sites on the right side (C5, Abdominal T10, Dorsal T10, L1, L4)
  - Pressure stimulation of same above sites.
  - Cold Pressor test
- Assess presence of central pain pathway hyperalgesia
- May differentiate
  - Wide-spread central
  - Segmental central pain sensation
  - No central pain processing.

#### Methods

- International Prospective Multi-Center Study
- Hypothesis: patients with refractory pain have central or segmental hyperalgesia
- ▶ Pain Response (>30% reduction in pain score) measured at enrollment and 6 months AFTER planned invasive treatment for pain from Chronic Pancreatitis
  - ERCP with Extra-Corporeal Shock Wave Lithotripsy (ESWL)
  - Total Pancreatectomy with Auto-Islet Transplantation (TPAIT)

#### Results

- 30 patients enrolled
- Mean pain score prior to intervention = 4.4 +/- 2.0
- Pain response (> 30%) achieved in 16 patients (53%)
  - ▶ No hyperalgesia by P-QST: 59%
  - Segmental hyperalgesia by P-QST: 63%
  - Wide-spread hyperalgesia by P-QST: 20%

#### Conclusion & Significance

- Widespread hyperalgesia may identify a subset of patients with refractory chronic pancreatitis pain who may not benefit from invasive treatments.
- ► Focus on such patients should be limited to neuromodulation.
- Significance potential to start characterizing pain modality and offer individualized treatment strategies.

# Abstract #651: Clinical Factors Influencing Celiac Plexus Block Outcomes in Chronic Pancreatitis

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#### Background

- When medical management fails or need to reduce opiate medication usage exists, escalation of pain treatments are considered.
- Celiac plexus block for treating pain for chronic pancreatitis remains controversial with efficacy rates ranging from 30-70%.
- Celiac plexus block includes 1) anesthetic bupivacaine, and 2) steroid – triamcinolone. ("Neurolysis" can include alcohol)
- Can be delivered by Pain Management Percutaneously or Endoscopically via Endoscopic Ultrasound

#### Methods

- Single Center Retrospective Study over 5 years of patients who underwent endoscopically delivered celiac plexus block.
- 364 patients were identified where 117 were included in this analysis based on sufficient documentation
  - Adequate clinical variables to analyze a priori clinical factors to predict pain response.

#### Results

- ▶ 28 out of 117 patients (32.5%) experienced pain improvement
- Risk factors to predict response:
  - Older patients were more likely to report benefit
  - Alcohol/Tobacco use less likely to report benefit
  - Narcotic usage less likely to report benefit
  - Neuromodulators (gabapentin, SSRI, TCA) less likely to report benefit

#### Conclusion & Significance

- Celiac plexus block remains controversial
- Should it be used at all, or should it be used earlier before medical management?
- Is there a role to try celiac plexus block before narcotics are used?
- Should we move to alcohol or radiofrequency ablation instead of bupivacaine?

## Background – Exocrine Pancreatic Insufficiency

- Insufficient delivery of digestive enzymes to achieve adequate digestion
- ~200,000 CP patients in the US, 15% have EPI at diagnosis and 35-75% will develop EPI
- Annual screening for EPI among CP patients recommended.
  - Symptoms: Steatorrhea, bloating, weight loss
  - ▶ Testing: 72-hour fecal fat, fecal elastase
  - Complications of EPI: Fat-soluble vitamin deficiency, B12, zinc, copper, osteoporosis
    Gardner, TB, et. al. Am J Gardner

Gardner, TB, et. al. Am J Gastroenterol 2020:115;322-39 Iglasia-Garcia, D et. al. Gut 2017:1354-55 D'Haese, JG, et. al. Pancreaas 2014: 834-41

# Pancreatic Enzyme Replacement Treatment is often suboptimal

- Patient compliance
- Insufficient dosage of PERT
- Inadequate timing of PERT administration
- Inadequate gastric acid inhibition
- Altered surgical anatomy and/or GI dysmotility -> PERT asynchrony
- Concurrent GI Co-morbidities:
  - ▶ SIBO, Celiac Disease, IBD, Biliary Stasis, DM

Abstract #575 Gastroenterology Follow Up Associated with Better Management of Exocrine Pancreatic Insufficiency Regardless of Etiology in Patients with Chronic Pancreatitis, Pancreatic Malignancy and Pancreatic Resection

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#### Background

- ► EPI is common after Chronic Pancreatitis, Pancreatic Resection, and Pancreatic Cancer.
- Screening and Treatment of PERT is sub-optimal
- Hypothesis: Do patients followed by Gastroenterologists have higher rates of screening and adequate treatment?

#### Methods

- Single-center Retrospective Study of all patients with EPI, CP, PDAC, pancreatic resection, identified by ICD10 or CPT code over 2 years.
- Patients identified by electronic search query and validated by manual chart review
- ▶ GI Specialist continuity defined by 2 or more visits.

#### Results

- ▶ 1464 patients were included in the study
- ▶ 470 of the 1464 were associated with a GI specialist

Dx/Tx	GI	Non-GI
Elastase Ordered	41%	11%
PERT prescribed	69%	58%
PERT adequate dosage	68%	58%

#### Results

Dx/Tx	GI vs. Non-GI (OR)
Vitamin D Testing	3.56
Vitamin D Replacement	1.98
HgA1c Testing	2.15
DEXA Scan	5.26

#### Conclusions & Significance

- Almost 70% of patients with CP, PDAC, pancreatic resection were not followed by a GI specialist.
- Associated with lower compliance to EPI management and treatment
- ▶ GI specialist care for EPI was associated with:
  - Higher rates of screening for EPI
  - Higher rates to assess complications of EPI (osteoporosis, vitamin D)
- Opportunity to educate PCP, Surgeons, and medical oncologists of EPI or referral to GI for further management

## Thank you.

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