



Clinical Characterization of the Silent Chronic Pancreatitis Patient

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Introduction

- “Silent”, or painless, chronic pancreatitis (CP) exists when patients with radiologic features of CP describe no abdominal pain.
- The silent cohort makes up 10% of CP population.¹
- Patients with painful CP demonstrate enhanced pain sensitivity with QST, but it is not yet clear what pathologic mechanisms account for this difference or if there are any differences in clinical outcomes between these subgroups.²
- The aim of this study was to better characterize the silent CP patient and investigate potential risk factors associated with this condition.

Methods

- Retrospective analysis using data from a single tertiary care center between 2018-2021.
- 286 patients were identified using ICD-10 codes (“other chronic pancreatitis”-K86.1 and “exocrine pancreatic insufficiency”-K86.81).
- Included if they demonstrated feature(s) of CP including parenchymal (atrophy, calcifications, scarring) and/or ductal (stricture, dilation) changes on CT, MRI, or EUS imaging.
- Excluded if their pain was attributed to a cause other than CP or if they underwent prior pancreaticobiliary surgery.
- Categorized as painful or silent CP, based upon documentation from at least two clinic visits.
- Descriptive statistics, bivariate and logistic regression analyses (utilizing variables with a p < 0.1 on bivariate analysis) were performed to characterize the study cohort and evaluate for independent associations with silent CP.

Table 1. Clinical Characteristics of Patients with Silent vs. Painful Chronic Pancreatitis

VARIABLE	TOTAL (n=117)	SILENT (n=23)	PAINFUL (n=94)	P VALUE
Age at index visit (Mean ± SEM years)	57.2 ± 1.4	67.3 ± 2.9	54.7 ± 1.4	<0.001
Disease Duration (Mean ± SEM years)	3.4 ± 0.2	2.9 ± 0.4	3.5 ± 0.3	0.47
Male Sex (%)	72 (61.5%)	19 (82.6%)	53 (56.4%)	0.03
Pancreatic duct stent in place (%)	7 (6.0%)	0 (0%)	7 (7.4%)	0.46
Diabetes (%)	51 (43.6%)	15 (65.2%)	36 (38.3%)	0.03
Current tobacco use (%)	39 (33.3%)	6 (26.1%)	33 (35.1%)	0.47
Current alcohol use (%)	13 (11.1%)	1 (4.35%)	12 (12.8%)	0.46
Current pancreatic enzyme use (%)	40 (34.2%)	6 (26.1%)	34 (36.2%)	0.47
Current APAP use (%)	38 (32.5%)	6 (26.1%)	32 (34.0%)	0.62
Current NSAID use (%)	21 (17.9%)	7 (30.4%)	14 (14.9%)	0.13
Current antidepressant or anxiolytic use (%)	44 (37.6%)	7 (30.4%)	37 (39.4%)	0.48
Current neuropathic pain medication use (%)	20 (17.1%)	3 (13.0%)	17 (18.1%)	0.76
Current opioid use (%)	44 (37.6%)	2 (8.7%)	42 (44.7%)	0.001
Any current pain med use (%)	92 (78.6%)	13 (56.5%)	79 (84.0%)	0.009

NOTE: APAP = acetaminophen; NSAID = non-steroidal anti-inflammatory drug

Results

- 117 patients with CP were included in this study (mean age 57.2 years, 61.5% male). 23 patients (19.7%) had silent CP.
- Patients with silent CP were older, more likely male, more likely diabetic, and less likely to use opioids or any pain medications (Table 1).
- On multivariate analysis, older age (OR 1.06, 95% CI 1.01-1.11, p=0.03), male sex (OR 5.38, 95% CI 1.38-20.96, p=0.02), and opioid use (OR 0.18, 95% CI 0.03-0.96, p=0.04) were associated with silent CP (Table 2).

Table 2. Multivariate Analysis for Association Between Clinical Characteristics and Silent vs. Painful Chronic Pancreatitis

VARIABLE	ODDS RATIO	95% CONFIDENCE INTERVAL		P VALUE
Age	1.06	1.01	1.11	0.03
Male Sex	5.38	1.38	20.96	0.02
Diabetes	2.43	0.77	7.61	0.13
Current opioid use	0.18	0.03	0.96	0.04
Any current pain medication use	0.86	0.24	23.07	0.82

Discussion and References

- Our findings contribute to a growing body of literature that suggest silent CP patients are usually older, more likely male, and less likely to use opioids.
- Future studies should focus on evaluating larger cohorts longitudinally to more carefully investigate the underlying pathophysiology of silent CP, as well as to evaluate clinical outcomes of this condition.

1. Bhullar FA, Faghih M, Akshintala VS, et al. Prevalence of primary painless chronic pancreatitis: A systematic review and meta-analysis. *Pancreatology*. Jan 2022;22(1):20-29.
 2. Phillips AE, Bick BL, Faghih M, et al. Pain Sensitivity and Psychiatric Comorbidities in Chronic Pancreatitis Patients With and Without Pain: Past Experience Matters. *Gastro Hep Advances*. Jan 2022;1(5):796-802.