Chronic Pancreatitis is a Common Finding in Celiac Patients Who Undergo Endoscopic Ultrasound

To the Editor:

Celiac disease (CD) has been associated with chronic pancreatitis (CP) in numerous studies, with 1 population-based study finding an almost 3-fold increase of CP in these patients.[1,2] Though the exact pathogenesis remains unknown, proposed mechanisms include edema at the duodenal papilla, papillary stenosis, and decreased cholecystokinin levels.[1,3–5]

In view of the limited clinical data on this association we characterized the findings on endoscopic ultrasound (EUS) and endoscopic retrograde cholangiopancreatography in CD patients evaluated over a 7-year period (Table 1).

Of 26 CD patients who underwent EUS and/or endoscopic retrograde cholangiopancreatography, 7 (27%) had findings consistent with CP. Those with abdominal pain prompting CD diagnosis had a greater risk of CP (3/7, 43%) versus those with other symptoms leading to CD diagnosis (4/19, 21%, $P = 0.34$). Four CP patients underwent EUS for current abdominal pain, 2 for abnormal imaging or endoscopy findings (cysts or polyps), and 1 for steatorrhea. During EUS, 4 of the 7 underwent concurrent duodenal biopsy, only 1 had findings suggestive of active CD.

With various pancreatic and ductal findings on EUS suggestive of CP, the threshold for diagnosis remains unestablished.[6,7] Our patients had a median of 3 findings, and 4 had recorded fatty infiltration or atrophic appearance. Three were placed on pancreatic enzyme replacement, and 2 improved. In those not treated, 1 had concern for autoimmune pancreatitis, requiring operative intervention. The others remained symptomatic.

TABLE 1. Characteristics of All Patients With Biopsy Proven CD Who Underwent EUS and/or ERCP, (n = 26)

Characteristic	No. (%)
Sex	
Male	6 (23.1)
Female	20 (76.9)
Age at CD diagnosis (mean/median) (y)	50.8/52.0
Age at first procedure (mean/median) (y)	59.7/62.5
Duration of CD at time of first procedure (mean/median) (y)	9.0/8.4
Presentation of CD*	
Abdominal pain	7 (26.9)
Anemia	6 (23.1)
Bone disease	1 (3.8)
Diarrhea	6 (23.1)
Neuropathy	1 (3.8)
Weight loss	2 (7.7)
Incidental or screening	5 (19.2)
No. patients diagnosed with CD at time of procedure	1 (3.8)
Indication for EUS or ERCP†	
Abnormal findings on endoscopy	9 (34.6)
Abnormal findings on imaging	13 (50)
Symptoms	10 (38.5)
Abdominal pain	7 (26.9)
Diarrhea	2 (7.7)
Jaundice	1 (3.8)
No. EUS procedures, mean/median	1.2/1
No. ERCP procedures, mean/median	0.4/0
Initial procedure	
EUS	22 (84.6)
ERCP	4 (15.4)
Findings	
Chronic pancreatitis/pancreatic atrophy	7 (26.9)
Duct stenosis or dysfunction, biliary/pancreatic	5 (19.2)
Lesions: tissue, cysts, plaques, or polyps (reactive, benign, nondiagnostic)	14 (53.8)
MALT lymphoma	1 (3.8)
Pancreatic adenocarcinoma	2 (7.7)
Side-branch intraductal papillary mucinous neoplasm	2 (7.7)
Sludge, common bile duct or gallbladder	3 (11.5)
No findings	1 (3.8)
Duodenal biopsy performed at time of procedure	
No	14 (53.8)
Yes	12 (46.2)
Active CD	4 (15.4)
Nonspecific inflammation, without CD	3 (11.5)
Normal	5 (19.2)

*Some patients had >1 presenting symptom, prompting diagnosis of CD.
†Some patients had more than one presenting indication prompting EUS or ERCP.
CD indicates celiac disease; ERCP, endoscopic retrograde cholangiopancreatography; EUS, endoscopic ultrasound; MALT, mucosa associated lymphoid tissue.

The diagnosis of CP can be challenging, reliant on symptoms and imaging findings. Symptoms such as abdominal pain and diarrhea are common in CD patients, possibly leading to underdiagnosis and undertreatment of CP. Although CP is known to affect CD patients, here we have found EUS findings that support the diagnosis. Many of the EUS findings can be age related findings, but in the correct clinical context, our results show the importance of recognizing CP in patients with CD.

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The authors declare that they have nothing to disclose.
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