

Pancreatic Pseudocyst Enveloping the Duodenum Causing Gastric Outlet Obstruction

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Introduction

- Pancreatic Pseudocysts form from inflammation and fluid accumulation. Commonly occur in patients with chronic pancreatitis
- Paraduodenal Pancreatitis is a form of chronic pancreatitis where inflammation is limited to the pancreatic head
 - Risk Factors: Alcohol abuse, Biliary/Pancreatic duct strictures.
- Approximately 40% of these patients with paraduodenal pancreatitis will have a pseudocyst in the pancreatic head.
- Pseudocysts may cause obstructive symptoms in both the biliary and GI tracts, usually due to mass effect and not encasement.

Hospital Course 1

Our patient: 35 year-old man with chronic pancreatitis and pancreatogenic diabetes secondary to alcohol abuse

Presenting Symptom: Syncope

Physical Exam: Unresponsive, tachycardic, distended abdomen with a mass in the left upper quadrant.

Labs: Hypoglycemia (17 mg/dL)

Initial Medical Therapy: Long acting insulin and dextrose containing IVF.

Imaging: Donut shaped torus causing duodenal obstruction with dilation of all proximal structures. The report also remarks that this lesion was communicating with a duct in the pancreatic head.

Initial Endoscopic Interventions: Endoscopic intervention with intraoperative ultrasound (EUS) was performed, biopsies of the lesion taken, and 10 mls of fluid were aspirated. Histopathological findings of the biopsy were benign, elevated concentrations of amylase and lipase were seen in the fluid, and confirmed the diagnosis of pseudocyst. The patient underwent another EUS and the pseudocyst was aspirated and stented, creating a cystoduodenostomy.

Disposition: The patient's gastric outlet obstruction resolved and he was discharged.

CT of the Abdomen

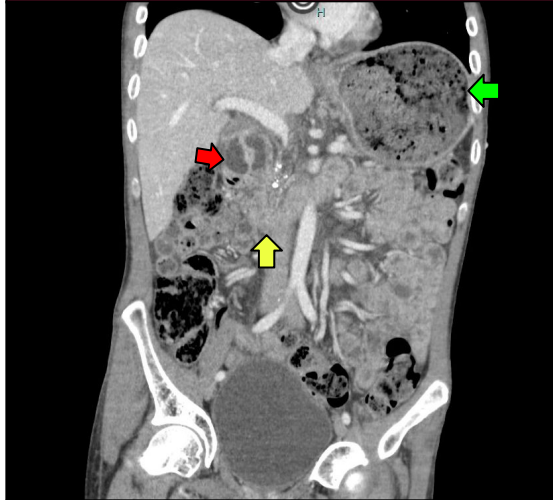


Figure 1: Abdominal CT showing a donut-shaped torus compressing the duodenum (red arrow), Dilation and distension of the stomach with food contents (green arrow), and the pancrea (yellow arrow).

EUS and Endoscopy



Figure 2 (above): EUS showing a small fluid collection surrounding the duodenum. White Arrow is touching the edge of the cystic structure and the dark area immediately above it is the fluid.

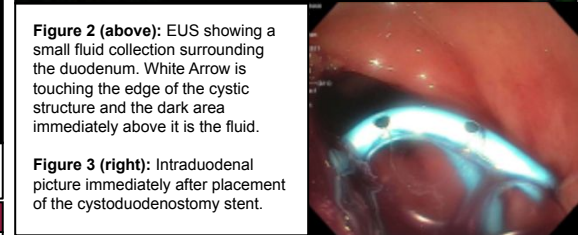


Figure 3 (right): Intraoperative picture immediately after placement of the cystoduodenostomy stent.

Hospital Course 2

Representation: 3 weeks after initial hospital course the patient returned with recurrent intolerance of oral intake.

Second Endoscopy: Severe esophagitis and a stricture in the duodenum which prevented passage of the endoscope distal to the stricture.

Surgical Management: Gastrojejunostomy to bypass the obstruction. Laparoscopic gastrojejunostomy was attempted but converted to an open procedure due to intra-abdominal adhesions.

Disposition: Uncomplicated discharge home.

Conclusion

- No set guidelines exist regarding management of pseudocysts.
- EUS minimizes the need for invasive options in many patients, though it may not be appropriate for all cysts.
- The anatomic characteristics of this pseudocyst are rare and may represent a type of pseudocyst that requires invasive management.
- Anatomic features of pseudocysts may be a way to stratify patients into noninvasive or invasive management options.