

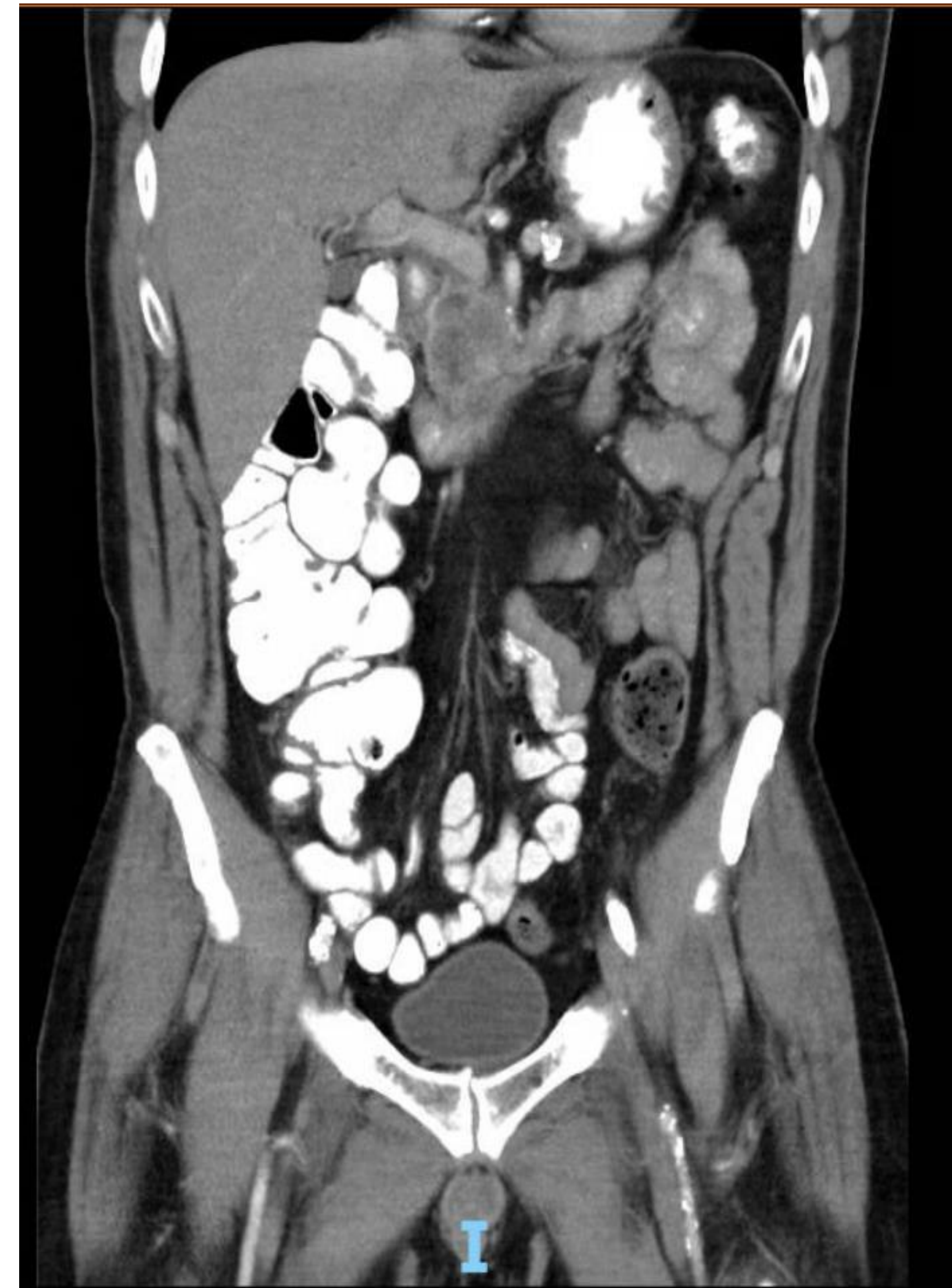
Introduction

Pancreatic serous cystadenomas (PSCA) which represent one-third of pancreatic cystic neoplasms are typically benign, asymptomatic lesions found incidentally on imaging studies at the body or tail of the pancreas. When symptomatic, it usually presents with abdominal pain and a palpable mass. We report a case of PSCA presenting as chronic diarrhea due to pancreatic duct (PD) obstruction with further enlargement over the years leading to biliary and partial duodenal obstruction.

Case Report

65 year old man with chronic diarrhea and a remote history of Hodgkin's Lymphoma treated with Mantle and pelvic radiation. Initially diagnosed as radiation enteritis, patient presented to our clinic with worsening diarrhea, flatulence, bloating, and weight loss. Endoscopic evaluation was negative for celiac disease or microscopic colitis. Diarrhea responded to empiric trial of pancreatic enzymes and he regained weight. CT scan of abdomen done to determine the etiology of exocrine pancreatic insufficiency (EPI) revealed a 3.7 cm complex cystic mass in the in the head of the pancreas with PD dilation and atrophy of the body and tail. Endoscopic ultrasound showed pancreatic mass with involvement of SMA and portal vein. Fine needle aspiration was not diagnostic. CT-guided biopsy was consistent with PSCA. 4 years later he complained of pale stools and dark urine; labs revealed ALT 495, alkaline phosphatase 463, bilirubin 4.5. MRI showed cyst enlargement to 5.7 cm with biliary dilation. Surgical consultation deemed him not to be a surgical candidate because of radiation induced vascular disease. ERCP with fully covered stent placement led to resolution of symptoms and normalization of liver tests. A year later ERCP with stent exchange showed compression of the duodenum distal to the stent leading to partial obstruction.

Image 1: There is an approximately 4.0 cm x 3.7 cm ill-defined complex mass in the head of the pancreas.



Common causes of pancreatic insufficiency

- *Chronic pancreatitis
- Cystic fibrosis
- Surgical resection (gastric, pancreas, small bowel)
- Pancreatic duct obstruction by benign or malignant lesions

Typical Symptoms of PSCA

- Asymptomatic (60%)
- Abdominal pain
- Abdominal mass
- Jaundice

Discussion

- EPI is most commonly a result of chronic pancreatitis^[1].
- Symptomatically patients may present with abdominal pain, flatulence, diarrhea, and weight loss ^[1].
- PSCA is usually an incidental finding on imaging studies ^[2] although rarely lead to gastric outlet obstruction, biliary and pancreatic duct obstruction ^[3].
- On review of medical literature, there are few cases that discuss EPI as the manifestation of PSCA.
- Asymptomatic patients with PSCA do not need treatment given the benign nature and rare malignant transformation rate (<3%). Surgery is recommended for symptomatic cysts with obstructive symptoms^[4].

Conclusion

Our patient presented with chronic diarrhea due to EPI caused by PD obstruction by a PSCA with biliary obstruction due to progressive enlargement.

This case underscores the importance of imaging the pancreas in all patients with EPI to evaluate for potential underlying neoplasm causing obstruction of the PD.

Our case also highlights that PSCA although benign if in the head of the pancreas can grow in size leading to gastric outlet obstruction and obstructive jaundice which can be associated with significant morbidity if the patient is not a surgical candidate.

References

1. Kunovsky L, Dítě P, Jabandžiev P, Eid M, Poredská K, Vaculová J, Sochorová D, Janeček P, Tesaříková P, Blaho M, Trna J, Hlavsa J, Kala Z. Causes of Exocrine Pancreatic Insufficiency Other Than Chronic Pancreatitis. *J Clin Med*. 2021 Dec 10;10(24):5779. doi: 10.3390/jcm10245779. PMID: 34945075; PMCID: PMC8708123.
2. Jais B, Rebours, et. al. Serous cystic neoplasm of the pancreas: a multinational study of 2622 patients under the auspices of the International Association of Pancreatology and European Pancreatic Club (European Study Group on Cystic Tumors of the Pancreas). *Gut*. 2016 Feb;65(2):305-12
3. Kerlin DL, Frey CF, Bodai BI, Twomey PL, Ruebner B. Cystic neoplasms of the pancreas. *Surg Gynecol Obstet*. 1987 Dec;165(6):475-8.
4. Strobel O, Zgraggen K, Schmitz-Winnenthal FH, Friess H, Kappeler A, Zimmermann A, Uhl W, Büchler MW. Risk of malignancy in serous cystic neoplasms of the pancreas. *Digestion*. 2003;68(1):24-33

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