Diffuse-type pancreatic ductal adenocarcinoma mimicking autoimmune pancreatitis

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Introduction

- Pancreatic ductal adenocarcinoma (PDAC) is the fourth-leading cause of cancer death in the United States [1]
- It classically presents as a solitary pancreatic mass on cross-sectional imaging
- PDAC that presents with multiple pancreatic masses is rare, although cases of synchronous multifocal PDAC have been reported [2]
- Diffuse-type PDAC (DTP) is an unusual variant that accounts for an estimated 1-5% of PDAC [3]
- Due to its rarity, there are no established radiographic or endoscopic definitions of DTP
- Previous case reports describe presentations of DTP as either a solitary pancreatic mass or diffuse pancreatic enlargement without masses [3-4]
- We report a unique case of a patient with DTP presenting with two distinct masses of the pancreatic head and tail, and with EUS findings mimicking autoimmune pancreatitis

Case Presentation

- A 70-year-old female with a history of papillary thyroid carcinoma, type 2 diabetes, GERD, and lifelong tobacco use presented with two weeks of severe epigastric pain
- She was unsuccessfully trialed on a proton-pump inhibitor and soon developed night sweats and unintentional weight loss

Case Presentation (cont.)

- CT showed two lesions of the pancreatic tail and head measuring 2.3 x 1.6 centimeters (cm) and 1.6 x 1.0 cm respectively (figure 1)
- EUS demonstrated a “sausage-shaped” enlarged pancreas with pancreatic duct dilation; no discrete lesions were seen (figure 2, 3)
- Workup for autoimmune pancreatitis was negative with normal IgG4 levels
- EUS-FNB of the pancreatic head mass revealed infiltrating adenocarcinoma
- Repeat CT scan showed interval enlargement of the tail mass
- PET scan showed FDG activity of the pancreatic tail lesion
- Subsequent EUS-FNB of the tail mass showed moderately differentiated invasive adenocarcinoma, as well as CBD sludge and narrowing of the distal CBD
- ERCP demonstrated a 3 cm stricture of the distal common bile duct, which was managed with a fully-covered metal stent
- A multidisciplinary tumor board deemed the neoplasm borderline-resectable diffuse-type PDAC
- The patient was started on a neoadjuvant chemotherapy regimen of gemcitabine and abraxane in preparation for total pancreatectomy

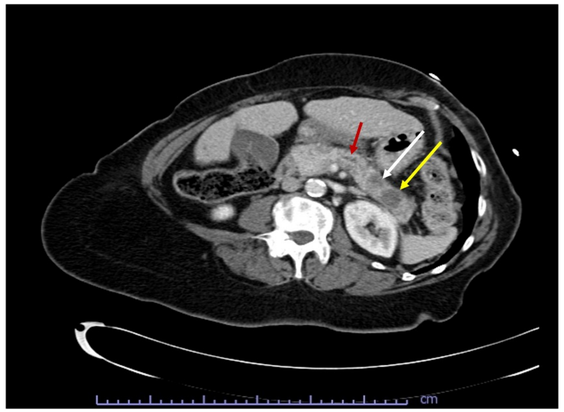

Figure 1. Axial-oblique abdominal-pelvic CT demonstrates a low-density lesion in the pancreatic tail (yellow arrow) measuring 2.3 x 1.6 cm. An adjacent ill-defined low-density lesion (white arrow) measures 1.6 x 1.0 cm. The pancreas is borderline in size, and the pancreatic duct is prominent (red arrow).

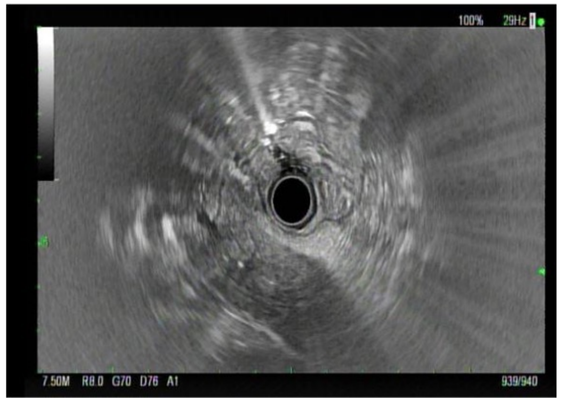

Figure 2. EUS demonstrates a diffusely enlarged pancreas with the head, body, and tail displaying a diffusely hypoechoic “sausage-like” appearance.

Discussion

- The differential for multiple pancreatic masses is broad and includes autoimmune pancreatitis, secondary metastases, and pancreatic neuroendocrine neoplasms [5]
- DTP is a rare manifestation of PDAC and little is known about its etiology and endoscopic findings
- DTP could stem from progression of a focal PDAC or could result from synchronous multifocal tumor development
- To our knowledge, this is the first documented case of DTP presenting with multiple pancreatic masses and EUS findings mimicking autoimmune pancreatitis
- Although rare, clinicians should be aware of its existence and differentiate it from autoimmune pancreatitis, which can present similarly
- The case illustrates the importance of sampling several areas of the pancreas when diffuse enlargement is present on EUS and multiple pancreatic masses are seen on cross-sectional imaging

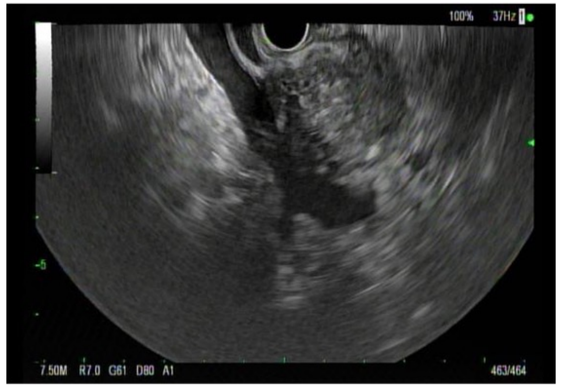

Figure 3. EUS demonstrates focal prominence of the pancreatic head with loss of interface with the portal vein-superior mesenteric vein confluence.

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