Pancreatic Adenocarcinoma in the Setting of Autoimmune Pancreatitis

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Introduction

- Autoimmune pancreatitis (AIP) accounts for 2% of pancreatitis cases and is characterized by chronic pancreas inflammation of autoimmune etiology.
- Two types of AIP are recognized. Type 1 AIP is an IgG4-related disease which often affects multiple organs. Type 2 AIP is IgG4-negative and affects mainly the pancreas with a third of patients exhibiting additional manifestations.
- The chronic inflammatory nature of AIP may be associated with higher rates of pancreatic cancer as compared to chronic pancreatitis of other etiologies.
- This case report demonstrates a new diagnosis of pancreatic cancer thought to be secondary to Type 2 AIP.

Table 1

Pathology Report	
Fine Needle Biopsy #1	Negative for malignancy. Reactive ductal epithelial cells. Mature appearing lymphocytes and plasma cells compatible with lymph node origin.
Fine Needle Biopsy #2	Positive for malignancy. Consistent with well differentiated pancreatic ductal adenocarcinoma. Clusters of neoplastic epithelial cells with moderate pleomorphism noted.

Case Description

- A 35-year-old female with a past medical history of diverticulitis and chronic pancreatitis of suspected autoimmune etiology presented to the hospital with persistent abdominal pain.
- An abdominal ultrasound demonstrated a hypoechoic pancreas with focal dilation of the main pancreatic duct. IgG4 was within normal limits. An endoscopic ultrasound (EUS)/endoscopic retrograde cholangiopancreatography (ERCP) with fine needle biopsy demonstrated signs of pancreatic inflammation and pancreatic duct dilation. Biopsy was negative for malignancy. She was discharged on oxycodone and gabapentin.
- She was subsequently readmitted without resolution of abdominal pain. On readmission, a CT abdomen/pelvis demonstrated a hypo-enhancing infiltrating lesion in the pancreatic head and uncinate process measuring 2.8 x 2.7 cm with vascular involvement. Ca-19.9 was within normal limits. EUS/ERCP with fine needle biopsy demonstrated hypoechoic expansion of the pancreas head with pancreatic duct dilation. Biopsy was positive for pancreatic ductal adenocarcinoma determined to be stage III and unresectable.
- Treatment with Gemcitabine/Abraxane was initiated for three cycles and is currently on hold due to chemotherapy induced side effects at six month follow up.

Discussion

- AIP and pancreatic cancer have similar presentations and must be clinically distinguished for appropriate treatment.
- There are many case reports of misdiagnosed pancreatic cancer later determined to be AIP by negative biopsy. However, there are few reported cases of AIP associated pancreatic cancer with positive biopsy.
- AIP is a chronic state of pancreas inflammation which may represent a pre-malignant process. This case demonstrates a patient with Type 2 AIP and negative biopsy who subsequently developed biopsy proven pancreatic cancer. Patients with Type 2 AIP may require close follow up for early detection of AIP induced pancreatic cancer.
- Further investigation is needed to determine the pre-malignant potential of AIP.