

Pancreatic Abscess: An Unusual Presentation of Pancreatic Tail Cancer

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ABSTRACT

Pancreatic abscess usually occurs in the setting of pancreatitis especially if complicated by pseudocysts or pancreatic necrosis. On the other hand, pancreatic body and tail cancer is relatively uncommon cancer and rarely does it present as a pancreatic abscess. We describe a 50-year-old man with sepsis due to underlying pancreatic abscess, who was later diagnosed to have pancreatic tail adenocarcinoma with the help of endoscopic ultrasound guided fine needle aspiration cytology.

Keywords: Adenocarcinoma of pancreas; pancreatic abscess; pancreatic cancer.

INTRODUCTION

Pancreatic abscess is an unusual presentation of pancreatic tail carcinoma. We describe a patient with pancreatic tail adenocarcinoma presented with sepsis due to underlying pancreatic abscess. This coexisting condition is difficult to diagnose, and prognosis remains poor despite the advances in technology.

CASE DESCRIPTION

A 50 year old man was transferred from outlying hospital for further management of septic shock with underlying pancreatic abscess. Patient initially reported to have few days of worsening abdominal pain, nausea and vomiting and fever of 102 °F. There were no reports of any medical problems in the past; he was non-alcoholic, non-smoker and was not on any medications.

The initial laboratory work-up revealed anemia (hemoglobin 9.5 g/dL, reference range:14.0-17 g/dL), leukocytosis (21,800 cells/mL, reference range: 4,500-11,000 cells/mL) with left shift, lactic acidosis (5.1 mEq/mL, reference range: 0.7-2.7 mEq/mL). His liver function test and lipase were normal. Computed tomogram (CT) scan of abdomen revealed several lesions in the liver and tail of pancreas suggestive of abscesses. He then underwent abscess drainage procedure at

outside facility via interventional radiological approach which showed few gram negative rods and gram positive cocci but pathogens were not able to be isolated. CT guided catheter drainage of his liver abscess was also attempted but was unsuccessful.

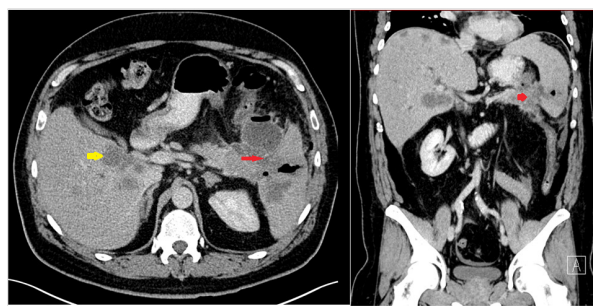


Figure 1a.

Figure 1b.

Figure 1a. CT scan of abdomen (transverse section) showing multiple irregular lesions in the liver (yellow arrow) and in pancreatic tail extending to the splenic flexure (red arrow).

Figure 1b. CT scan of abdomen (longitudinal section) showing multiple irregular lesions in the liver and pancreatic tail extending to the splenic flexure and transverse colon (red arrow).

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On arrival, he was intubated for hemodynamic compromise. The antibiotics were broadened to vancomycin, piperacillin-tazobactam and levofloxacin. The repeat CT abdomen showed multiple irregular lesions in the liver, and a mass in the pancreatic tail extending to the splenic flexure and transverse colon which was present despite drainage (Figure 1a, 1b). The patient then underwent endoscopic ultrasound (EUS) which confirmed the presence of multiple liver masses and a mass in the pancreatic tail extending to transverse colon. Fine needle aspirations of the liver and pancreatic tail lesions were performed. His CA19.9 was elevated over 19,000. Serum carcinoembryonic antigen (CEA) was normal. Once his sepsis improved, he also underwent colonoscopy (Figure 2) which showed partially obstructing circumferential tumor of transverse colon likely the source of pancreatic abscess.

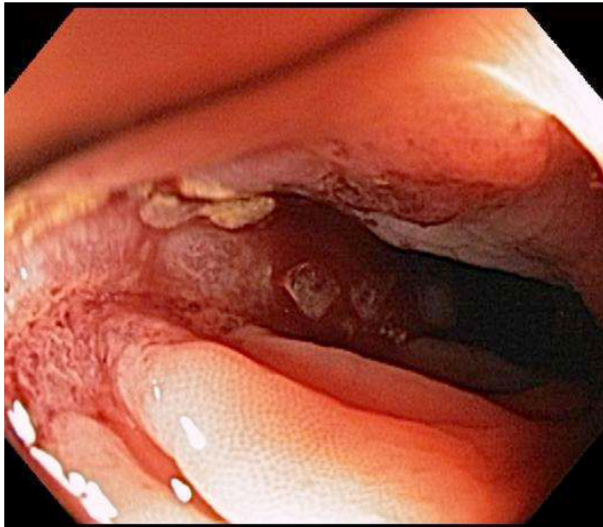


Figure 2. Colonoscopic view showing invasive lesions in transverse colon likely the source of pancreatic abscess

Final pathology from fine needle aspiration confirmed the pancreatic ductal adenocarcinoma with mucinous differentiation and extension into the wall of the colon where it was limited to the colonic serosa and smooth muscle. The diagnosis of metastatic pancreatic adenocarcinoma was made, and decision was made for hospice care.

DISCUSSION

Pancreatic body and tail carcinoma (PBTC) is one of the most lethal carcinoma because it is usually diagnosed at an advanced stage and is resistant to therapy.¹ According to latest data, it is the fourth leading cause of cancer-

related death in the United States among both men and women.² Approximately 60 to 70% of pancreatic cancers are located in the head of the pancreas, and 20 to 25% are located in the body and tail of the pancreas. The clinical presentations depend on location of cancer.¹ A lesion in the head of the pancreas commonly presents as painless jaundice. However, pancreatic tail lesions have highly variable clinical presentations which may include weight loss, indistinct abdominal pain, back pain, new onset of diabetes etc.^{3,4} There are some other atypical clinical presentations reported in the literature like microperforation due to large bowel obstruction from tumor extension, splenic infarction/ abscess or splenic rupture presenting as shock.^{5,6} There is also a case report of disseminated intravascular coagulation due to carcinomatosis of the bone marrow from pancreatic tail cancer.⁷ It is very unusual for PBTC to present as pancreatic abscess. Instead, pancreatic abscess usually occurs in the setting of pancreatitis especially if complicated by pseudocysts or pancreatic necrosis.⁸ Infection outside of this setting is extremely uncommon.

The two articles based on case reports, published in 1990s, have discussed about pancreatic abscess coexisting with pancreatic adenocarcinoma.^{9,10} These articles also described the possibility of development of pancreatitis with underlying pancreatic cancer which eventually gets complicated with pancreatic abscess.^{9,10} However, in our case, we think that pancreatic tail lesion which was extending to the transverse colon basically acted as a nidus for migration of anaerobic bacterial flora to form pancreatic abscess. The patient might have developed the acute features of systemic infection after the tumor infiltrated into the colon resulting in fecal contamination of the tumor.

In pancreatic abscess, serum CA19.9 marker would be helpful in order to carefully investigate the possibility of underlying pancreatic cancer. The EUS is modality of choice for both diagnosis and treatment with high sensitivity and specificity with the use of fine needle aspiration cytology.⁸ Therefore, all suspected pancreatic tail lesions should have histology confirmation using EUS when CT guided interventional approach does not help.⁸ We also speculate that, beside variability in presentation, PBTC with coexisting abscess is very aggressive in nature with a low resectability rate. Its course could be fatal as demonstrated in all the cases described in literature despite advancement of technology.^{9,10}

To conclude, pancreatic abscess causing septic shock is an unusual presentation of pancreatic tail carcinoma. We should consider EUS for further evaluation of pancreatic lesion when CT interventional approach is inconclusive.

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