Tuberculous Celiac Axis Lymphadenopathy Mimicking Cystic Pancreatic Neoplasm - A Diagnostic Dilemma

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Received: 16 December 2013 / Accepted: 2 June 2014 / Published online: 17 June 2014
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Abstract Cystic pancreatic neoplasms are tumors with malignant potential treated surgically. Isolated tuberculosis of celiac lymph nodes is rare, treatment of this entity being non-surgical. Radiological appearances of cystic pancreatic neoplasm and tuberculous peripancreatic lymph nodal mass is similar and difficult to differentiate. Here we present a case of mass lesion in the region of pancreatic head mimicking cystic pancreatic neoplasm which was actually abdominal tuberculous lymphadenopathy proven by biopsy.

Keywords Cystic pancreatic lesion · Pancreatic cystic neoplasms · Abdominal tuberculosis · Tuberculous lymphadenopathy

Introduction

Cystic pancreatic neoplasms are rare tumors of pancreas with tendency for regional and distant metastasis, those with regional and distant metastasis have poor prognosis. They present with vague symptoms like abdominal pain, weight loss. Most being asymptomatic are detected incidentally on imaging for some unrelated symptoms. Incidence of cystic pancreatic neoplasm are increasing with increasing availability and use of imaging studies like CT scanning done for work-up of different medical problem unrelated to cystic pancreatic neoplasm[1]. Diagnoses of these tumors are made on imaging studies like CT/MRI.

Tuberculosis in a developing country like India is common. Abdominal tuberculosis involving only peripancreatic lymph node or paraaortic lymph nodes are rare [2]. It presents with vague symptoms almost similar to pancreatic cystic neoplasm like abdominal pain, nausea, weight loss or fever. Radiologically it is difficult to confidently differentiate between pancreatic cystic neoplastic and isolated tuberculous lymphadenopathy in peri-pancreatic region. Radiological appearances of cystic pancreatic neoplasm and tuberculous peripancreatic lymph nodal mass is almost similar [3]. It is very important to differentiate between these two entities as surgery is central in the treatment of these cystic neoplasms because of malignant potential and non-surgical treatment is central for tuberculous abdominal lymphadenopathy. Here we present a case of mass lesion in the region of pancreatic head mimicking cystic pancreatic neoplasm which was actually abdominal tuberculous lymphadenopathy proven by biopsy with review of literature.

Case Report

39 year old male patient was referred from department of gastroenterology with complains of abdominal pain since two years, pain was more of a discomfort it was localized to epigastric region with no aggravating or relieving factors. He had associated loss of weight and loss of appetite. On general physical examination vitals were normal. On per abdominal examination other than mild tenderness in epigastric region there was no palpable mass or organomegaly. Routine blood investigations were within normal limits.

CT scan done revealed multiloculated cystic mass measuring $5.2 \times 3.9 \times 4.4$ cm with enhancing margin with thick septae in pancreatic region extending medially to impinge on caudate lobe of liver with obliterated fat plane between the mass and the liver Fig. 1. Differential diagnosis of pancreatic cystic neoplasm and suppurative celiac axis lymphadenopathy

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Fig. 1 Imaging: CT & MRI

of Koch's etiology was made on CT scan. MRI was done as compliment to CT imaging which revealed lesion as heterogeneously enhancing multiseptated lesion with central necrosis in periportal region and suprapancreatic region measuring $5.4 \times 3.7 \times 4.6$ cm Fig. 1. MRI differential diagnosis was similar to CT with advice to co-relate clinically between pancreatic cystic neoplasm and suppurative lymphadenopathy of Koch's etiology. Biopsy of lesion was planned to come to diagnosis. As lesion was easily accessible through per-

cutaneous route this route was preferred over endoscopic biopsy of lesion. FNAC of lesion was done under USG guidance. USG guided FNAC of abdominal lesion was reported as necrotizing granulomatous inflammation with scattered AFB suggestive of Tuberculosis Fig. 2. Post FNAC he was started on ATT to which he is responding well. Follow up CT done 2 month post starting of ATT revealed more than 50 % reduction in size of lesion Fig. 3.

Fig. 2 FNAC of lesion

Fig. 3 Follow up CT Image

Discussion

Pancreatic cystic neoplasm and tuberculous paraaortic lymphadenopathy both present with non-characteristic vague symptoms. Pancreatic cystic neoplasm are asymptomatic in 30–35 % (these cases are detected incidentally) and in symptomatic patients most common presentation is abdominal pain (69 %) followed by weight loss (38 %), pancreatitis (36 %), jaundice (18 %), back pain (18 %), abdominal mass (5 %). In tuberculous paraaortic lymphadenopathy presenting symptoms can be similar like abdominal pain, weight loss. Abdominal CT/MRI in both situations shows focal hypo dense or hypo echoic lesion in the head region. Imaging finding of cystic pancreatic neoplasm is diverse varying from unilocular to multilocular cyst with Septations. Cyst wall calcifications may be present in mucinous cystic neoplasm. Dilated main pancreatic duct or pancreatic duct branches may be seen with or without solid components. Radiologically cystic neoplasm of pancreas and tuberculosis of peri-pancreatic region is difficult to differentiate as both of them have septa within mass, cyst with internal echoes and may have calcified rim of cyst wall [4].

EUS provides higher resolution imaging of the pancreas and its duct and is more sensitive in detecting mural nodules. In addition, if image guided percutaneous FNAC is not possible EUS-guided fineneedle aspiration helps in diagnosing and guiding treatment by determination of tumor marker concentrations, cytological analysis, and molecular diagnostic evaluations. It is very important to differentiate between these two conditions because of difference in management, one being surgical and other non-surgical. A diagnosis of tuberculosis can be suggested only in the presence of ancillary findings like pulmonary tuberculosis, pleural effusion,

enlarged celiac lymph nodes, ascites, and mural thickening in the ileocecal region [5]. But if these features are absent like in our case then it is difficult to differentiate between these two lesions. Then diagnosis of tuberculosis can be established by pathological confirmation by biopsy. US or CT-guided percutaneous FNA of lesion to obtain proof of the bacilli by the Ziehl-Neelsen stain or by culture is first diagnostic option. To address issue of potential risk of tumor dissemination in cystic neoplasm by FNA Lo SF [6] concluded that with FNAC spillage of tumor cells is not reported and FNA should be considered in young patients presenting with a cystic pancreatic mass. Laparotomy with intraop frozen is indicated to establish a diagnosis where FNA is inconclusive. Chung reported similar case of isolated peripancreatic tuberculous lymphadenopathy mimicking pancreatic cystic neoplasm where he has highlighted importance of differentiating these two conditions [7]. Most of other reported cases in literature are that of pancreatic tuberculosis and not tuberculous lymphadenopathy mimicking pancreatic cystic neoplasm [8]. Cystic variety of pancreatic ductal adenocarcinoma is rarely a differential diagnosis for such type of lesions. Certain findings of cystic variety of pancreatic ductal adenocarcinoma like irregular contour, mural nodes, localized thickening, peripancreatic fat infiltration, and vascular or peripheral tissues involvement, though not specific, may be helpful for differentiation. Cystic variety of pancreatic ductal adenocarcinoma should be included in the differential diagnosis of pancreatic cystic neoplasms.

To conclude isolated peripancreatic tuberculous lymphadenopathy mimics pancreatic cystic neoplasm. If radiology imaging is not confirmative of diagnosis and there is high index of suspicion of tuberculosis image guided FNA should be done to obtain correct preoperative diagnosis. Laparotomy and intra op frozen should be reserved to establish diagnosis if FNA is inconclusive. We present this case report in hope that this case report and review of the literature will raise awareness and remind surgeons to think about tuberculous lymphadenopathy mimicking cystic pancreatic neoplasm and vice versa when such case comes as management of both these conditions is completely different.

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