



Cystic Space Occupying Lesion (Sol) of Pancreas – Not Always Malignant

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INTRODUCTION

Development of abdominal TB is independent of pulmonary disease with a reported incidence of 5-10% of all extrapulmonary sites involved. Organs commonly affected in TB abdomen includes liver, spleen, bowel, peritoneum and mesenteric nodes. Isolated pancreatic TB is a rare clinical entity seen only in approximately 8.3% of abdominal TB patients with only a hand full of cases been reported so far. In a study conducted by Bhansali et. Al with 300 patients of abdominal TB, not even a single patient had pancreatic involvement proving the rarity of this condition.⁽¹⁾ Pancreatic TB is commonly seen in TB dissemination or in immunocompromised patients.^(2,3)

Isolated TB pancreas commonly presents as discrete pancreatic mass often mimicking pancreatic malignancy or pyogenic pancreatitis, most commonly seen in young individuals with 50% of cases reported so far aged between 20-30yrs.⁽⁴⁾ Early suspicion and diagnosis is needed as these patients have an excellent outcome to standard ATT treatment. We herewith report a case of isolated pancreatic TB for its rarity.

Keywords: pancreas, tuberculosis, cystic neoplasm.

CASE REPORT

A 22 year old female who was under evaluation for primary infertility in department of obstetrics and gynaecology, Government Stanley hospital was referred to Institute of Surgical Gastroenterology and liver transplantation, Government Stanley hospital for opinion regarding an incidental finding of cystic space occupying lesion of pancreas found in Ultrasonogram screening for infertility. Patient presented with vague non specific symptoms like generalized myalgia and loss of appetite for the past 3 months. Bowel/ Bladder habits were normal and she denied prior history of anti tuberculosis treatment or close contact with the TB patient.

ON EXAMINATION

Patient belonged to ECOG performance status I, moderately built and nourished, had no pallor/icterus/ pedal edema. Her abdomen was soft, non tender, no organomegaly and there was no evidence of free fluid in the abdomen. Respiratory and cardiovascular system examination were normal.

INVESTIGATION

Routine blood investigation revealed anemia, normal liver and renal function test, serum amylase, lipase levels were normal, CRP negative, tumor markers –CA 19.9 and CEA negative, viral markers and mantoux were negative. Esophago gastroduodenoscopy showed an extraneous impression over D1/D2 junction and there was no oesophageal or fundal varices.

IMAGING

- CHEST XRAY was normal.
- USG Abdomen (fig: 1) revealed a cystic space occupying lesion over the neck/body of pancreas measuring approximately 6×5×4cms.
- CECT Abdomen (Fig: 2) showed a well defined cystic space occupying lesion over the neck and body of pancreas of size 5.5×4.7×3.3cms, with central area of hypoattenuation and peripheral hyperattenuation. Spleno portal axis was normal, SMA/SMV was free from the lesion.
- USG guided aspirate analysis (Table – 1) – Gene xpert positive for Mycobacterium tuberculosis.

TREATMENT

Patient was started on category I Anti tuberculous treatment currently under regular follow up, showing good clinical and radiological response to ATT.



Fig 1 USG Abdomen Showing Cystic Sol Pancreas



Fig 2 CECT Abdomen Showing Abscess Involving Head and Neck of Pancreas.

Table – 1 : USG guided aspirate analysis

Amylase	73U/l
Cytology	Eosinophilic aspirate
AFB smear/ culture	Negative
Gene xpert	Positive for Mycobacterium tuberculosis and sensitive to rifampicin

DISCUSSION

PATHOGENESIS

Although primary invasion of TB bacilli is not usually evident in most cases of pancreatic TB, several mechanisms have been postulated. Contiguous infection from peripancreatic node or rarely from hematogenous spread are the most acceptable among them.⁽⁵⁾ Most common sites are head and uncinete process of pancreas.^(6,7)

CLINICAL PRESENTATION

Pancreatic TB can present as solid/cystic mass lesion, abscess, lymphoma, pseudocyst or acute/chronic pancreatitis.⁽⁸⁾ Presence of vascular invasion does not rule out the possibility of pancreatic TB.⁽⁹⁾ Common bile duct and pancreatic duct are usually preserved, inspite of the lesion being located in pancreatic head in contrary to malignancy.

Most common symptom include non-specific abdominal pain, fever, anorexia and weight loss.^(10,11,12,13,14) Less common symptoms are iron deficiency anemia, vomiting, obstructive jaundice, hematemesis and portal hypertension.^(6,15,16)

Xia and colleagues reported 16 patients with pancreatic TB and the presenting symptoms were abdominal pain (75-100%), weight loss (69%), malaise (64%), fever and night sweats (50%).⁽¹⁷⁾

Laboratory abnormalities include anaemia, decreased WBC, increased OT/PT, increased ALP in 50% cases.⁽¹⁷⁾ Tuberculin skin test is positive with an induration of more than 10mm in 50% cases but a negative mantoux does not rule out pancreatic TB.⁽²⁾

IMAGING

Pancreatic TB can be classified radiologically into 3 types. A) mass forming B) diffuse form C) small nodular form, of which mass forming type is more common seen in approx. 94% cases.⁽¹⁸⁾

Although imaging modalities like USG, CT, MRI may suggest the possibility of pancreatic TB none are neither specific nor pathognomic.⁽¹⁹⁾

USG usually shows diffusely enlarged pancreas with focal hypoechoic lesions or a cystic lesion.^(19,20) Associated findings include peripancreatic /mesenteric adenopathy, bowel wall thickening and ascites.⁽¹⁹⁾

CT abdomen reveals mass lesion over the head/uncinate process of pancreas. Peripheral ring enhancement of nodes are visible on i.v contrast.^(10,18,23)

EUS-FNA aspirate from the lesion and performing bacterial culture, cytology, AFB staining is usually needed in majority of cases but definitive diagnosis is based on HPE and microbiological confirmation (gene xpert/PCR).⁽²²⁻²⁹⁾

In a study done by Song et al 76.2% of patients with pancreatic TB were diagnosed by EUS-FNA of which 75% had histopathological evidence of caseating granuloma⁽³⁰⁾ and 20-40% had microbiological confirmation of AFB.⁽²⁷⁾

TREATMENT

Multidrug antituberculous chemotherapy is given for a period of 6-12 months. Response to ATT is usually excellent, but follow-up is always needed in these patient to rule out the rare possibility of TB co-existing with malignancy.^(10,11,12,14,21,31,32)

When diagnosis and treatment is delayed this condition carries a mortality rate of 10.8%. for those patients with very large mass minimally invasive procedures like endoscopic internal drainage, percutaneous catheter drainage or biliary stenting can be performed undercover of ATT.⁽³³⁾

CONCLUSION

High index of suspicion is needed to diagnose pancreatic TB especially in TB endemic like India.

Pancreatic mass in a young individual, possibility of tuberculosis should be considered in differential diagnosis.

Utilization of EUS with biopsy and latest molecular diagnostic techniques like gene xpert might help in differentiating this benign pathology from malignancy.

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