Case Report

A rare case of Pancreatic Tuberculosis - A Case Report

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ABSTRACT

Tuberculosis (TB) is an extremely common disease in developing countries. Atypical form of TB involves immune-compromised patients. Pancreatic involvement of TB is much more a rarity. Here we would like to present a case of pancreatic TB in an immune-compromised woman. Ultrasound guided Fine Needle Aspiration (FNA) from the pancreatic mass of young immune-compromised woman was done, and smears were prepared using May-Grunwald-Giemsa stain and Ziehl-Neelsen stain for acid fast bacilli (AFB). Smears showed loaded AFB in a necrotic background. A high index of suspicion must be maintained for pancreatic TB in immuno-compromised patients who are presenting with mass abdomen, and guided FNA would help in diagnosis.

Key words: Fine Needle Aspiration, Immuno-compromised, Pancreas, Tuberculosis

Introduction

Tuberculosis (TB) is an extremely common disease in developing countries, though its incidence is on the rise in western world too. TB of digestive system involves ileocecal region commonly, followed by regional lymph nodes. Atypical form of TB is commonly seen with immunocompromised patients.[1] Pancreatic TB is considered a very rare clinical entity, although in postmortem studies pancreatic involvement was seen in 0 to 14% of deaths from miliary TB.[2,3,4]

Increased incidence of this entity is related now to frequency of abdominal tuberculosis in immunocompromised patients and improvement in the imaging modalities of pancreas.[4]

Fine Needle Aspiration Cytology (FNAC) is a sensitive and rapid method in diagnosing pancreatic TB. Pancreatic TB should be considered as a differential diagnosis of a pancreatic mass in immunocompromised patients and most patients have good response to anti-tuberculosis treatment.

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Case Report

A 35 year old female patient, retro viral (HIV) positive, presented to the outpatient department with complaints of fever on and off since one month, pain abdomen of twenty days duration and mass per abdomen noticed four days back. The patient underwent ultrasonographic (USG) examination of abdomen. USG revealed a well circumscribed irregular cystic lesion containing anechoic fluid and internal debris in head and the body of pancreas and extending outside. Subsequently the patient underwent Computerized Tomography (CT) scan, which revealed a hypodense lesion in the head and body of pancreas (Fig. 1).

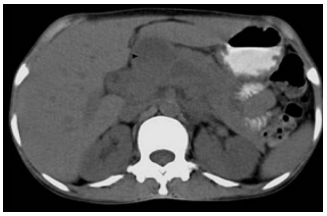

Fig.1. Axial CT of upper abdomen with oral contrast and without IV contrast reveals enlargement of head and body of pancreas with an ill-defined hypodense lesion.

Differential diagnosis such as cystic neoplasm of pancreas, pseudo-cyst of pancreas, and pancreatic abscess were considered. USG guided FNAC was performed under strict aseptic conditions using an 18 gauge spinal needle. The aspirate revealed frank, thick pus, and the material was smeared on slides and stained with May-Grunwald-Giemsa (MGG) stain, and Ziehl-Neelsen (ZN) stain for acid fast bacilli (AFB). The smear showed degenerative / necrotic background loaded with acid fast bacilli on ZN stain (Fig. 2).

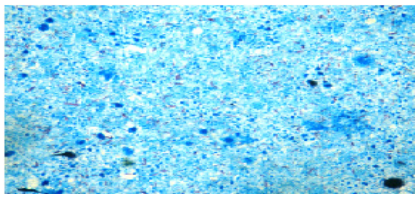

Fig. 2. Loaded with acid-fast bacilli (pink rod-like structures) on Ziehl-Neelsen stain (100x)

Discussion

Tuberculosis (TB) in its extra-pulmonary form rarely affects pancreas, because it is biologically protected from Mycobacterium tuberculosis bacilli due to presence of pancreatic enzymes.[5] Most of the medical literature on this rare disease is limited to case reports or small case series. Most cases of pancreatic TB arise from contiguous infection from peripancreatic lymph nodes or directly from hematogenous spread or reactivation of previous abdominal TB.[6,7] Clinical features of TB are nonspecific. A meta-analysis of twelve published reports by Lo et al,[8] listed constitutional symptoms like weight loss, fever, malaise, night sweats, epigastric pain, nausea, diarrhea and obstructive jaundice as the most common symptoms. CT scan may demonstrate focal hypodense lesion, diffuse enlargement of pancreas, but none of them are pathognomonic of TB. Ring enhancement or low density areas within enlarged lymph nodes should make one suspect TB lymph nodes.[9] Percutaneous image guided FNAC of suspected lesions might suggest the diagnosis of TB, there by obviating the need for diagnostic laparotomy or pancreatic resection.[6,10] In almost half of the patients with extra-pulmonary tuberculosis, ZN staining for AFB and prolonged culture for mycobacterium tuberculosis has been found to be negative.[11] Very few are diagnosed by FNAC.

Conclusion

A high index of suspicion must be maintained for pancreatic TB in immunocompromised patients who are presenting with mass abdomen or hypodense lymph nodes in peri-pancreatic region. When diagnosis is suspected, a detailed screening for TB and image-guided FNAC of pancreatic lesion can confirm the diagnosis and unnecessary explorative laparotomy or pancreatic resection can be avoided.

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