

ISOLATED PANCREATIC TUBERCULOSIS

Isolated pancreatic tuberculosis (TB) is extremely rare, even in countries where TB is endemic. The recent increased reporting of TB of the pancreas is related to a worldwide increase in TB and an increase in emigration from countries where TB is endemic into countries where more sophisticated healthcare and diagnostic facilities are available. Herein, we report an unusual case of isolated pancreatic region TB, which presented with dyspeptic symptoms and was diagnosed by ultrasonography-guided needle aspiration and computed tomography scan of the abdomen. This case is unique with regard to abundant bacterial load, as evident by Ziehl Neelsen staining and absence of evidence of TB elsewhere. Pancreatic TB should be considered as a differential diagnosis of a pancreatic mass and most patients have an excellent clinical response to standard antituberculosis regimens.

Key words: *Acid fast bacilli, pancreatic tuberculosis*

Tuberculosis (TB) is common in developing countries, but TB affecting intra-abdominal organs is relatively uncommon. The development of abdominal TB is independent of pulmonary disease in most patients, with a reported incidence of coexisting disease varying from 5 to 36%.^[1] In a study from Delhi, the percentages of patients admitted for abdominal TB have been reported as 0.8%.^[2] Pancreatic TB, in particular, is extremely rare and the incidence has been reported to be around 0-4.7%.^[3,4] Its occurrence may pose a diagnostic problem in differentiating it from carcinoma of the pancreas. In view of the non-specific clinical presentation, the disease can elude a diagnosis, but once diagnosed, it responds favourably to antituberculous therapy (ATT).

Case Report

A 28-year-old woman was admitted to the outpatient medicine department with complaints of dyspepsia and

sour eructations, worsened by meals, for the past 6 months. In the month before presentation she had four to five episodes of moderate to severe intensity pain in the upper mid-abdomen, lasting for few hours. On examination, she looked ill, had pallor, and tenderness in the epigastrium and right hypochondrium. Her ESR was 95 mm in the 1st hour. Ultrasonography of her abdomen revealed a lobulated hypoechoic mass, with areas of cystic degeneration, in the regions of the pancreas. Abdominal and pelvic computed tomography (CT) performed after oral and intravenous administration of the contrast material revealed a heterogeneously enhancing multicystic mass in the region of the pancreas contiguous with the head and body of the pancreas [Figure 1]. Pus was obtained by CT-guided needle aspiration. The pus revealed abundant acid fast bacilli (AFB) on Ziehl Neelsen (ZN) staining [Figure 2].

There was no clinical, radiological, or other laboratory evidence of TB anywhere else. She was tested negative for human immunodeficiency virus. The patient was started on standard ATT consisting of streptomycin, isoniazid, rifampicin, and ethambutol. She responded remarkably to ATT for 1 year. She refused a follow-up scan.

Discussion

TB, in its extrapulmonary form, although emerging as a clinical problem, rarely affects the pancreas. The pancreas is biologically protected from being infected by *Mycobacterium tuberculosis*, probably because of the presence of pancreatic enzymes that interfere with the seeding of *M. tuberculosis*.^[5] Its indolent course and vague symptomatology along with non-specific laboratory and radiological findings call for greater vigilance. Infection

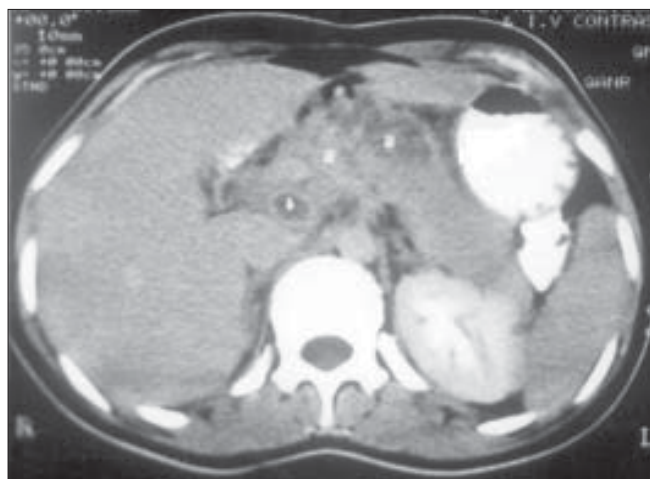


Figure 1: A computed tomography scan of the abdomen showing a tubercular mass in the region of the pancreas, contiguous with the head and body of the pancreas

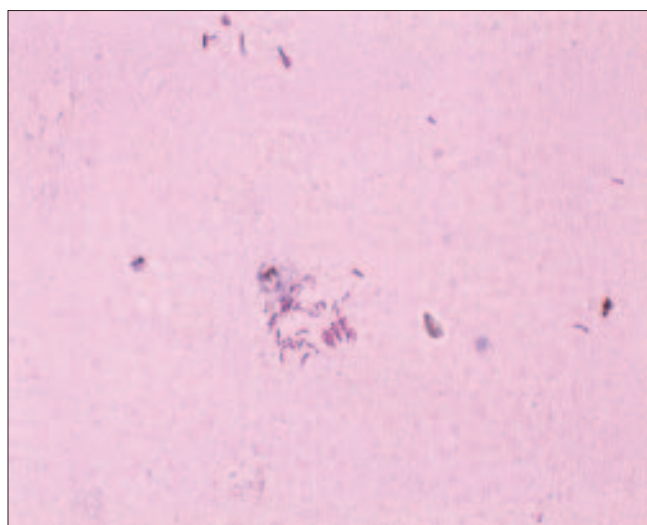


Figure 2: Ziehl Neelsen a smear showing abundant acid fast bacilli

is said to involve the pancreas by direct extension, lymphohaematogenous dissemination, or following reactivation of previous abdominal TB.^[6,7] Contrast-enhanced CT scans may demonstrate a focal hypodense mass, diffuse enlargement of the pancreas, but none of the signs are pathognomonic. Ring enhancement or low-density areas within enlarged lymph nodes should make one suspect tuberculous lymph nodes.^[1] Percutaneous image-guided fine needle aspiration of suspicious lesions might suggest the diagnosis of TB, thereby obviating the need for a diagnostic laparotomy.^[6] In almost half of the patients with extrapulmonary TB, ZN staining for AFB and prolonged culture for *M. tuberculosis* has been found negative.^[8] Very few are diagnosed by fine-needle aspiration/biopsy.^[1,6-10] Once the diagnosis has been established, the majority of the patients with TB respond favourably to ATT.^[6]

Our patient did not have a personal or family history of TB and was immunocompetent, with no evidence of any other foci of TB. The case report adds one more to the small number of cases of isolated pancreatic TB. Pancreatic TB should be suspected in patients having a pancreatic mass or hypodense lymph nodes in the peripancreatic region, particularly if the patient presents with fever and is young, not jaundiced, lived in or travelled to an area of endemic TB, or was exposed to TB. When the diagnosis is suspected, a detailed screening for TB and CT-guided fine-needle aspiration cytology of the pancreatic lesion can confirm the diagnosis and unnecessary explorative laparotomy or pancreatic resection can be avoided.

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