# Pancreatic Tuberculosis: A rare finding

Mahanta BN, Jawed MQ

## ABSTRACT

Tuberculosis being a common infectious disease in developing countries affects almost every organ of the body, but pancreatic tuberculosis is extremely rare. Pancreatic TB may occur by direct infection of M tuberculosis, lymphatic spread or reactivation of previous inadequately treated case. It needs to be differentiated from carcinoma pancreas. Once diagnosed it is curable with fair prognosis. We report a case in a young female presented with pain abdomen. The history and clinical examination of the lady revealed presence of pallor with an upper abdominal lump. Investigations showed a pancreatic mass lesion suggestive of tuberculosis or malignancy. CT guided FNAC demonstrated granulomatous lesion suggestive of Tuberculosis. The patient responded to anti-tuberculous chemotherapy and became asymptomatic.

Keywords: pancreas, tuberculosis, FNAC

## INTRODUCTION

Tuberculosis (TB) is common in developing countries. Involvement of intra-abdominal organs in TB is independent of pulmonary disease in most patients.[1] The reported incidence of co-existing disease varies from 5–36%. A study from Delhi revealed the percentage of patients admitted for abdominal TB to be 0.8%; and pancreatic TB to be 0.47%. Its occurrence may pose a diagnostic dilemma in differentiating it from carcinoma of pancreas. In view of non specific clinical presentation, the disease can elude a diagnosis, but once diagnosed it responds well to ATT. Pancreatic tuberculosis is seen most often in underdeveloped or developing nations, reflecting a greater prevalence of M tuberculosis infection in these populations.[1,2]

## CASE REPORT

A 25 year old, Hindu housewife presented with evening rise of temperature with chill, diffuse dull aching epigastric pain of four months duration, accompanied by vomiting and progressive weakness. There was no family history of tuberculosis. She was a non smoker, non alcoholic, non vegetarian. Her menstrual cycle was normal. On Examination: She was conscious, oriented and alert. Her pulse was 76/min, regular; blood pressure was 110/70 mmHg; respiratory rate was 16/min; temperature was 98.2$^0$F. She was averagely built, poorly nourished, with 45 kg weight. Moderate degree of pallor was present; Icterus and cyanosis were absent. There was no edema, dehydration, clubbing or koilonychias. Chest, CVS, CNS including skeletal survey did not reveal any abnormality. Abdominal examination revealed a mass in the epigastrium, size about 5 cm x 4 cm, irregular in shape, tender, fixed and firm in consistency. Laboratory investigation revealed Hb- 7.5 gm%, ESR- 130 mm AEFH, WBC- 9800/mm$^3$, DLC- $N_{68}$ $E_2$ $L_{29}$ $B_0$ $N_{1,}$ and random blood sugar was 74 mg/dl. The Liver function test showed a total protein of 7.9 gm/dl, albumin- 5.4 gm/dl, globulin- 2.5 gm/dl, total bilirubin- 0.24 gm/dl (direct: 0.08 gm/dl, indirect : 0.16 gm/dl); ALP- 426 U/L, ALT- 51 U/L, AST- 86 U/L, GGT- 119 U/L. Routine urine examination was normal. Montoux Test was positive (>20mm). Chest X-ray PA view showed patchy opacity in right lower zone. Ultrasonography of abdomen revealed multiple perigastric and peripancreatic nodes, with a mass in right hypochondrium with a anechoic area. Upper GI endoscopy showed extramural swelling. CT scan of abdomen (AMC/Radiology-61730) revealed an ill defined iso-hypo dense lesion of size 6x6x9cm in the region of head and uncinate process of pancreas with heterogenous enhancement and encasing the celiac trunk, common hepatic artery, common bile duct and portal vein. FNAC of the pancreatic mass showed granulomatous lesion suggestive of Tuberculosis. (Figure 1) ZN Stain of the aspirate did not reveal AFB.

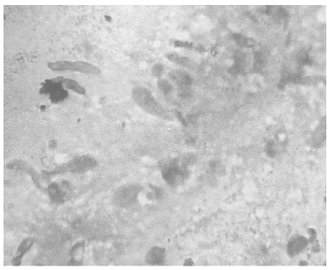

**Figure 1:** FNAC Pancreas showing Granulomatous lesion suggestive of Tuberculosis.

## DISCUSSION

Extrapulmonary TB is an emerging clinical problem but it rarely affects the pancreas. Because if its rarity, it does not normally get included in the differential diagnosis of a pancreatic mass.[3,4] Pancreas is biologically protected from M tuberculosis, probably because of the pancreatic enzymes interference. Nonetheless, infection can occurs by direct infection, lymphatic spread or following reactivation of previous abdominal TB. Most patients present in the second or third decade of life. Sometimes it is associated with immune-compromised state.[5]

Ultrasonographic features include a diffusely enlarged pancreas with focal hypoechoic lesions or cystic lesions of the pancreas.[6] Associated findings comprise peripancreatic and mesenteric lymphadenopathy, bowel wall thickening (usually in the ileocaecal region), focal hepatic or splenic lesions and ascites.[3] CT scan commonly reveals a mass lesion.[7] In patients with HIV infection, CT scan may show small low-attenuated nodules or diffuse enlargement of the pancreas.[7] Cystic lesions and multiloculated lesions of the pancreas have also been found to be of tuberculous origin.[8] Peripancreatic and periportal lymphadenopathy with peripheral ring enhancement are common ancillary findings.

The present case showed a multi-lobulated rim enhancing lession/collection area within lymph node should make suspicion of tuberculosis. As the lady did not have a past or family history of tuberculosis and was not associated with immune-compromised state, the diagnosis rested on CT guided FNAC, which was suggestive of tuberculous lesion affecting the head and uncinate process of pancreas. The Mantoux test was also strongly positive, though not confirmatory for pancreatic tuberculosis.

Treatment of pancreatic tuberculosis comprises multi-drug anti-tuberculous chemotherapy for 6 to 12 months. Response to therapy is predictable and complete.[9] These patients still need to be followed up carefully for subjective and objective response to therapy to rule out the rare possibility of tuberculosis coexisting with malignancy.

## CONCLUSION

Pancreatic tuberculosis should be excluded in cases of pancreatic mass lesion by CT guided FNAC. Early diagnosis and treatment with ATT is curative.

## AUTHOR NOTE

B N Mahanta, Associate Professor, **(Corresponding Author),** drbnmahanta@gmail.com
Department of Medicine.
Md Q Jawed, MD student, Assam Medical College, Dibrugarh, Assam

## REFERENCES

1. Bhansali SK. Abdominal tuberculosis. *Am J Gastroenterol.* 1977;67:324-7.
2. Mourad FH, McLean A, Farthing MJ. Tuberculous pancreatitis: a diagnostic problem. Case report and review of literature. *J Clin Gastroenterol.* 1995;20:237-40.
3. Lo SF, Ahchong AK, Tang CN, Yip AW. Pancreatic tuberculosis: case reports and review of the literature. *J R Coll Surg Edinb.* 1998;43:65-8.
4. Brusko G, Melvin WS, Fromkes JJ, Ellison ES. Pancreatic tuberculosis. *Am Surg*. 1995;61:513-5.
5. Stambler JB, Klibaner MI,Bliss CM, LaMont JT. Tuberculous abscess of the pancreas. *Gastroenterology*. 1982;83:922-5.
6. Takhtani D, Gupta S, Suman K, et al. Radiology of pancreatic tuberculosis: a report of three cases. *Am J Gastroenterol.* 1996;91:1832-4.
7. Pombo F, Diaz-Candamio MJ, Rodriguez E, Pombo S. Pancreatic tuberculosis: CT findings. *Abdom Imaging.* 1998;23:394-7.
8. Sozbilen M, Erhan Y, Koyuncu A. Tuberculosis of the pancreas. *Br J Surg*. 1992;29:802.
9. Yokoyama T, Miyagawa S, Noike T, Shimada R, Kawasaki S. Isolated pancreatic tuberculosis. *Hepatogastroenterology.* 1999;46:2011–14.