



Pancreatic Tuberculosis in an Immunocompetent Patient: A Case Report and Review of the Literature

Mahsa Abbaszadeh¹, Jalal Rezai², Mehrdad Hasibi³, Mehrdad Larry^{1,*},
Mohammad Reza Ostovaneh⁴, Sanam Javidanbardan¹, Seyed Amir Mirbagheri¹

1. Department of Internal Medicine, Amir Alam Hospital, Tehran University of Medical Sciences, Tehran, Iran
2. Department of Surgery, Amir Alam Hospital, Tehran University of Medical Sciences, Tehran, Iran
3. Department of Infectious Diseases, Amir Alam Hospital, Tehran University of Medical Sciences, Tehran, Iran
4. Division of Gastroenterology, Department of Medicine, Johns Hopkins Medical Institutions, Baltimore, MD, USA

ABSTRACT

Pancreatic tuberculosis is extremely rare and its clinical and radiological findings are similar to those of pancreatic malignancy. The diagnosis of pancreatic tuberculosis is not usually made prior to surgery. Here, we report a case of pancreatic tuberculosis, presented with abdominal pain and weight loss. Abdominal computed tomography (CT) showed a 62 mm × 32 mm septate solid-cystic mass in the pancreatic head area with extension into the hilum of the liver. There was no evidence of inflammation or pancreatitis. Endoscopic ultrasound-fine needle aspiration (EUS-FNA) could not yield the diagnosis. Exploratory laparotomy and further pathological evaluation suggested pancreatic tuberculosis. Response to antituberculosis treatment confirmed the diagnosis. Finally, previous case reports and case studies of pancreatic tuberculosis in the literature are fully investigated.

KEYWORDS:

Pancreas; Tuberculosis; Biopsy; Fine-Needle; Endosonography

Please cite this paper as:

Abbaszadeh M, Rezai J, Hasibi M, Larry M, Ostovaneh MR, Javidanbardan S, Mirbagheri SA. Pancreatic Tuberculosis in an Immunocompetent Patient: A Case Report and Review of the Literature. *Middle East J Dig Dis* 2017;**9**:239-241. doi: 10.15171/mejdd.2017.80.

INTRODUCTION

Pancreatic tuberculosis is a very rare condition and presents with non-specific symptoms. Radiological imaging shows an incidental abdominal mass.^{1,2} In endemic areas, pancreatic lesions in young individuals and clinical features in favor of tuberculosis (fever and weight loss) should be evaluated for pancreatic tuberculosis.¹

The diagnosis of pancreatic tuberculosis is often confirmed in exploratory laparotomy; however, in recent years endoscopic ultrasound-fine needle aspiration (EUS-FNA) provides a less invasive diagnostic alternative. Clinical suspicion is important to avoid unnecessary further diagnostic or therapeutic procedures.²

CASE REPORT

A 23-year-old woman presented with epigastric pain and weight loss to Amir Alam hospital, Tehran, Iran. She had lost four kilograms of weight during 2 months but denied any signs of nausea or vomiting and had regular bowel movements. In initial assessment at the emergency room, the patient was afebrile and had stable vital signs. She had marked upper abdominal tenderness but the physical examination was otherwise normal. Her medical or surgical history was not significant. She was not taking any medication and had no drug allergies.

* Corresponding Author:

Mehrdad Larry, MD-MPH,
Department of Internal medicine, Amir Alam Hospital, Tehran University of Medical Sciences, North Sa'adi Street, 13145-784 Tehran, Iran.
Telefax: + 98 21 66728736
Email: mehrdad.larry@gmail.com

Received: 11 May 2017
Accepted: 12 Aug. 2017

heterogenic masses, and hypodense image on CT. There may be multicystic lesions on imaging. Radiographically, complex cystic lesions are reported more frequently than solid masses.^{2,6} Presence of a thick margin around the pancreatic lesion is indicative of pancreatic tuberculosis.⁷ Findings that may suggest mycobacterial infection include the presence of rim-enhanced lymph nodes in the peripancreatic region or the mesentery, ascites, and a thickened bowel wall in the ileocecal region.^{6,7} Criteria for the diagnosis of pancreatic tuberculosis were the presence of granuloma in histological sections or the presence of mycobacterium tuberculosis DNA by polymerase chain reaction (PCR).² Most reported cases have been diagnosed via laparotomy. Percutaneous fine needle aspiration has been recently used to diagnose pancreatic tuberculosis.⁶

In conclusion, the importance of this case report is considering the suspicion of tuberculosis before or during the operative period, and appropriate bacteriological testing for these patients. In Islamic Republic of Iran, all physicians should be aware of the clinical features of pancreatic tuberculosis and conduct appropriate investigation to detect mycobacteria. It is also necessary to increase experience in endo-ultrasonography and fine needle aspiration in our country. Pancreatic tuberculosis is a treatable and a potentially curable condition. Thus, it is important for the physicians to consider this diagnosis especially in high-risk populations.

CONFLICT OF INTEREST

The authors declare no conflict of interest related to this work.

REFERENCES

1. Lotfi M, Lotfi K. Tuberculous Pancreatitis: Report of a "very rare case" and review of the literature. *Ambassadors Online Magazines* 2007;**10**, <http://ambassadors.net/archives/issue22/selectedstudy2.htm>
2. Chatterjee S, Schmid ML, Anderson K, Oppong KW. Tuberculosis and the pancreas: a diagnostic challenge solved by endoscopic ultrasound. A case series. *J Gastrointest Liver Dis* 2012;**21**:105-7.
3. Knowles KF, Saltman D, Robson HG, Lalonde R. Tuberculous pancreatitis. *Tubercle* 1990;**71**:65-8. doi: 10.1016/0041-3879(90)90064-F.
4. Sotoudehmanesh R, Khatibian M, Zandi A, Shokri-Shirvani J, Yaghoobi A, Sotoudeh M, et al. Pancreatic Tuberculosis Diagnosed with Endoscopic Ultrasound-Guided Fine Needle Aspiration: Solid-Cystic Pancreatic Lesions in Endemic Areas. *J Diag Medical Sonogr* 2013;**29**:97-101. doi: 10.1177/8756479313476917.
5. Ladas SD, Vaidakis E, Lariou C, Anastasiou K, Chalevelakis G, Kintzonidis D, et al. Pancreatic tuberculosis in nonimmunocompromised patients: reports of two cases and a literature review. *Eur J Gastroenterol Hepatol* 1998;**10**:973-6.
6. Takhtani D, Gupta S, Suman K, Kakkar N, Challa S, Wig JD, et al. Radiology of pancreatic tuberculosis: a report of three cases. *Am J Gastroenterol* 1996;**91**:1832-4.
7. Rezeig MA, Fashir BM, Al-Suhaibani H, Al-Fadda M, Amin T, Eisa H. Pancreatic tuberculosis mimicking pancreatic carcinoma: four case reports and review of the literature. *Dig Dis Sci* 1998;**43**:329-31. doi: 10.1023/A:1018854305652.