



Case Report



Peripancreatic Lymphadenopathy Mimicking Malignancy

Abstract

Extrapulmonary tuberculosis involvement sometimes may mimics tumors and presents a diagnostic challenge. We present a case of pulmonary tuberculosis who was followed with a prediagnosis of pancreatic mass lesion but detected tuberculosis lymphadenopathy on hepatoduodenal ligament.

Introduction

Although the incidence of tuberculosis decreases, it is still an important infectious disease worldwide [1]. The most important and frequent clinical condition is pulmonary tuberculosis. Extrapulmonary involvement has increased in recent years [2]. Extrapulmonary presentations of the disease raise difficulties in differential diagnosis. The most important step in the diagnosis is suspicion of tuberculosis. Tuberculosis can infect almost any organ in the human body. Tuberculous lymphadenitis is the most common manifestation of tuberculosis in the abdomen and accounts for 20% of extrapulmonary infection, either seen in isolation or with other organ involvement [3]. We present a case of intraabdominal tuberculosis lymphadenitis on hepatoduodenal ligament mimicking pancreas cancer.

Case Report

A 45-year-old female patient was admitted to the gastroenterology department outpatient clinic with complaints of weight loss and abdominal pain for two months. In the detailed history of the patient, it was learned that she had cough and sputum for four months. General examination of the case was asthenic and her skin was pale. She had a history of viral encephalitis four years ago. Physical examination revealed fine crackles on both hemithorax. Other system examinations were found to be normal. Laboratory tests showed anemia (hemoglobin: 10 g/dl), leukocytosis (WBC: 17000 /L), increased C-Reactive protein (18 mg/L) and elevated erythrocyte sedimentation rate (40 mm/h). Liver function tests were normal. Abdominal US showed a suspicious mass lesion at the head of the pancreas. The patient was consulted to the general surgery and the patient was planned to perform a dynamic pancreatic CT with a preliminary diagnosis of malignant neoplasm of the pancreas.

In pancreas CT, the pancreas is of normal size, uniform contoured and homogeneous, free of mass. A lymph node with a central necrotic area an approximate size of 33x15 mm was detected around the middle of the hepatoduodenal ligament (Figure 1). It was radiologically compatible with tuberculous lymphadenitis.

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Figure 1: Pancreas CT shows a peripancreatic lymph node with a central necrotic area (blue arrow).

She was referred to chest disease clinic for evaluation of her clinical and radiologic findings. Chest X-Ray showed consolidation and cavitary lesions in the left upper zone and

infiltration in the right upper zone of the lungs (Figure 2). Thorax CT revealed micronodules, which were common in the upper lobes, and cavitary consolidations on the left side (Figure 3).



Figure 2: Chest X-Ray shows consolidation and cavitary lesions in the left upper zone and infiltration in the right upper zone of the lungs.

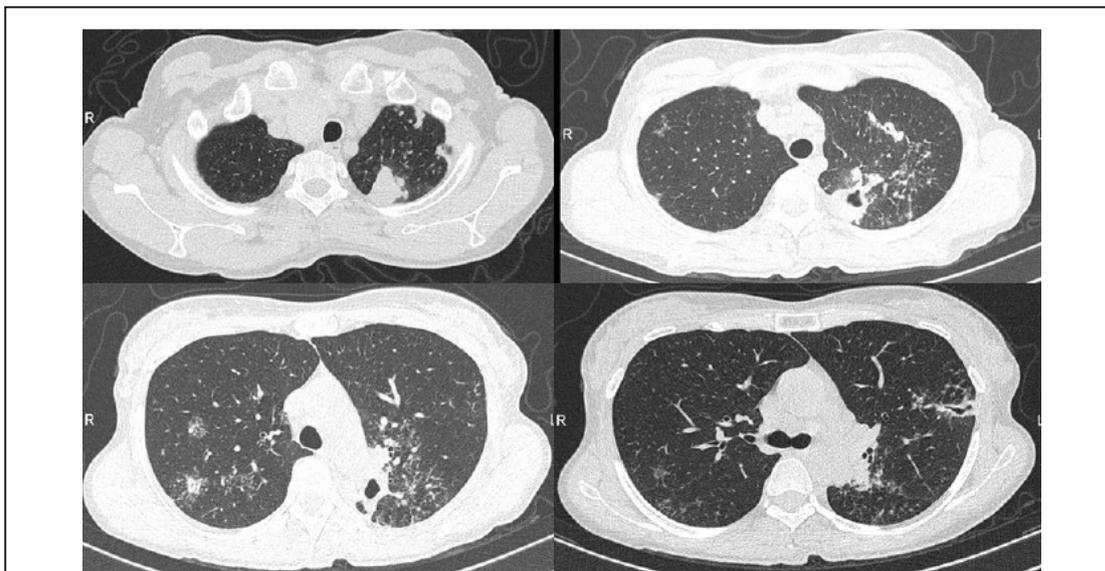


Figure 3: Thorax CT shows micronodules, which were common in the upper lobes, and cavitary consolidations on the left side.

A tuberculin skin test was positive with 20 mm sized induration. A BCG vaccination scar was observed on her left shoulder. Sputum Acid Fast Bacteria staining (AFB) and tuberculosis culture were both positive. A four-drug initial anti-tuberculous treatment regimen (isoniazid, rifampicin, pyrazinamide, and ethambutol) was commenced. The patient's antituberculous treatment continues. Clinical and radiological follow-up was performed.

Discussion

In recent years, the incidence of extrapulmonary tuberculosis has increased [4]. This is a case of pulmonary tuberculosis presenting with extrapulmonary involvement. The most commonly involved organ other than the lungs are lymph nodes. Intraluminal spread or lymphohematogenous spread may occur in extrapulmonary tuberculosis. In this patient, we think that extrapulmonary tuberculosis developed with lymphohematogenous spread of primary tuberculosis in the lung. Lymphohematogenous spread is more common in primary infection. Lymph nodes are held by hematogenous or direct spread. The most involved lymph nodes are the anterior or posterior cervical chain and supraclavicular lymph nodes. Mediastinal and mesenteric lymph nodes may also be involved [5]. In the intraluminal spread, infectious respiratory secretions infects the respiratory and gastrointestinal tract. Intestinal involvement in autopsy has been shown in 55-90% of patients with mortal pulmonary tuberculosis. 25% of patients with intestinal tuberculosis have pulmonary tuberculosis. The response to antituberculous treatment is very good in these patients [6].

Isolated pancreatic tuberculosis is quite rare. The majority

of cases are part of disseminated tuberculosis. Clinical manifestations of pancreatic tuberculosis may vary widely. Abdominal pain, jaundice, fever, weight loss and night sweat are the most common findings [7]. Pancreatic involvement looks like a mass appearance mimicking abscess or carcinoma. For this reason, patients may undergo unnecessary surgery and there may be delays in the diagnosis [8]. Tuberculosis granulomas occlude the bile ducts followed by tuberculosis cholangitis. However, in this case, it was seen that lymph node involvement was seen instead of the pancreas involvement.

The definitive diagnosis of tuberculous lymphadenitis is made by the detection of granulomatous inflammation and caseous necrosis in the histopathological examination of the tuberculosis bacilli from the biopsy material [9]. However, intraabdominal lymph node biopsy was not performed for this patient because she had concomitant pulmonary tuberculosis which support the diagnosis.

A definitive diagnosis of tuberculosis is made by the proliferation of the bacteria in the culture of the specimen taken from the patient. However diagnosing pure extrapulmonary tuberculosis remains challenging because clinical samples obtained from relatively inaccessible sites may be paucibacillary, decreasing the sensitivity of diagnostic tests [10]. In the conventional method, the sensitivity of AFB smears is low and requires a long time for *Mycobacterium tuberculosis* culture. Therefore, the diagnosis of extrapulmonary tuberculosis is mostly due to histological methods. For this reason, biopsy may require aspiration of body fluid in some cases. Nucleic acid amplification test in some cases, e.g., PCR helps in diagnosis. From immunological tests, the Tuberculin Skin Test (TST) and IFN- γ release

test (IGRA) may be a supportive method for the diagnosis of extrapulmonary tuberculosis, but have limited value in a limited diagnosis.

TST and IGRA cannot differentiate latent and active tuberculosis or extrapulmonary tuberculosis, and negative results cannot completely exclude the disease. A new meta-analysis evaluating the accuracy of IGRAs in the blood reported that sensitivity and specificity for the diagnosis of extrapulmonary tuberculosis, were 72% and 82% for the QuantiFERON-TB Gold or QuantiFERON-TB Gold in-tube assay. 90% and 68% for T-SPOT TB respectively [11]. The general clinical condition of the patient is good and the treatment is still ongoing. Clinical and radiological evaluation was planned.

References

1. Global Tuberculosis Report (2016) In: Essential Medicines and Health Products Information Portal, WHO, Switzerland.
2. Forssbohm M, Zwahlen M, Loddenkemper R, Rieder HL (2008) Demographic characteristics of patients with extrapulmonary tuberculosis in Germany. *Eur Respir J* 31: 99-105.
3. Kruijshaar ME, Abubakar I (2009) Increase in extrapulmonary tuberculosis in England and Wales 1999-2006. *Thorax* 64: 1090-1095.
4. Sunnetcioglu M, Baran AI, Binici I, Esmer F, Gultepe B (2018) Evaluation of 257 extra pulmonary tuberculosis cases at the Tuberculosis Control Dispensary, Van, Turkey. *J Pak Med Assoc* 68: 764-767.
5. Saluja SS, Ray S, Pal S, Kukeraja M, Srivastava DN, et al. (2007) Hepatobiliary and pancreatic tuberculosis: a two decade experience. *BMC Surg* 24: 07-10.
6. McMullan GS, Lewis JH (2017) Tuberculosis of the Liver, Biliary Tract, and Pancreas. *Microbiol Spectr* DOI: 10.1128/microbiolspec.TNMI7-0025-2016.
7. Chaudhary P, Bhadana U, Arora MP (2015) Pancreatic Tuberculosis. *Indian J Surg* 77: 517-524.
8. Yan CQ, Guo JC, Zhao YP (2007) Diagnosis and management of isolated pancreatic tuberculosis: experience of 13 cases. *Chin Med Sci J* 22: 152-155.
9. D'Cruz S, Sachdev A, Kaur L, Handa U, Bhalla A, et al. (2003) Fine needle aspiration diagnosis of isolated pancreatic tuberculosis. A case report and review of literature. *JOP* 4: 158-162.
10. Lee JY (2015) Diagnosis and treatment of extrapulmonary tuberculosis. *Tuberc Respir Dis* 78: 47-55.
11. Shin JA, Chang YS, Kim HJ, Ahn CM, Byun MK (2015) Diagnostic utility of interferon-gamma release assay in extrapulmonary tuberculosis. *Diagn Microbiol Infect Dis* 82: 44-48.