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Diagnostic difficulties in peripancreatic tuberculous lymphadenitis: A case report

Tanı zorluğuna neden olan peripankreatik tüberküloz lenfadeniti: Olgu sunumu

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Peripancreatic tuberculosis involving the lymph node is rarely seen. In this paper, a case is presented and the literature reviewed. A 28-year-old woman was admitted to the hospital because of pain in the epigastric region, weakness and malaise. Ultrasound and computed tomography scan revealed a mass near the head of the pancreas. The patient was explored for diagnosis. A peripancreatic mass was found adherent to the pancreatic capsule and the frozen section of the mass was reported as lymphadenopathy. The mass was resected totally. Histopathologically, the diagnosis was peripancreatic tuberculous lymphadenitis. She was prescribed antituberculous drugs for one year.

Key words: Peripancreatic lymph node, tuberculosis

Tüberküloz hastalığında peripankreatik lenf nodu tutulumu oldukça nadirdir. Bu çalışmada literatür eşliğinde peripankreatik tüberküloz lenfadenitli bir olgu sunulmuştur. Yirmisekiz yaşında kadın hasta, epigastrik bölgede ağrı, halsizlik ve yorgunluk şikayetleriyle başvurdu. Ultrasonografi ve bilgisayarlı tomografisinde, pankreas baş kısmında, ekstrapankreatik uzanım gösteren kitle görüldü. Ameliyat edilen olguda, pankreas kapsülüne yapışık bir kitle tesbit edildi. Total olarak çıkarılan kitlenin histopatolojik değerlendirmesinde tuberkuloz lenfadenit bulundu. Olgu 1 yıllık antitüberküloz tedaviye alındı.

Anahtar kelimeler: Peripankreatik, tüberküloz, lenfsadenit

INTRODUCTION

Tuberculosis is a common illness in developing countries. Although the involvement of liver, spleen, bowel and mesenteric lymph nodes is common in miliary tuberculosis, peripancreatic lymph node involvement is extremely rare (1). Its occurrence may pose a diagnostic problem in differentiating it from a carcinoma of the pancreas and pancreatitis (2). There are three spread mechanisms for extrapulmonary tuberculosis. The first is hematogenous, which accounts for the majority of cases. The second is infectious secretions via the respiratory and gastrointestinal tract. The third is by direct spread from a pulmonary or extrapulmonary site (3). Abdominal tuberculous lymphadenitis usually produces minimal symptoms even with advanced disease. Peripancreatic tuberculous lymphadenitis is rarely seen in the English literature (4). The clinical and laboratory findings may be non-specific, resulting in delay in diagnosis. It may be diagnosed by percutaneous needle biopsy under ultrasound (US) or computerized tomography (CT) guidance (5).

In this paper, we report a case of peripancreatic tuberculous lymphadenitis in a patient with nonspecific abdominal discomfort; mass resection procedure was necessary for correct diagnosis.

CASE REPORT

A 28-year-old female was admitted with a one-year history of epigastric pain associated with weakness. Other family members had no health problems. On physical examination, she was in no distress except abdominal tenderness with deep palpation. Blood analysis was normal except for low hemoglobin rate (8 g/dl). Urinalysis was normal.

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Sedimentation rate was 15 mm/hour. The chest roentgenogram was interpreted as normal. US examination revealed a mass 15x10 mm located near the head of the pancreas. CT demonstrated an extrapancreatic tumor of the same size. Needle biopsy with CT guidance was performed for diagnosis. Histopathological examination of aspirate revealed a benign cytology. The patient was followed for one year, at which time she returned to our surgery clinic with a mass 32x25 mm in size on the magnetic resonance (MR) imaging (Figure 1). During the follow-up period, she had not experienced any gastrointestinal disorder. Doppler US showed no abnormal findings. This patient was diagnosed as having peripancreatic tumor and underwent surgery. Abdominal laparotomy revealed a capsulated tumor (32x20 mm) adherent to the head of the pancreas and minimally replacing the pancreatic gland. The mass was excised totally. Histopathological examination confirmed that the lesion was a granulomatous lymphadenitis. Microscopically, granulomas were seen in the lymph node. Normal follicles were seen only under the capsule. There was caseous necrosis at the center of the granulomas. Some of the granulomas were surrounded by histiocytes and Langhans giants cells (Figure 2). Acid fast bacilli were not demonstrated. Antituberculous treatment for the patient was begun following consultation with the pulmonologist. A one-year follow up has been uneventful.

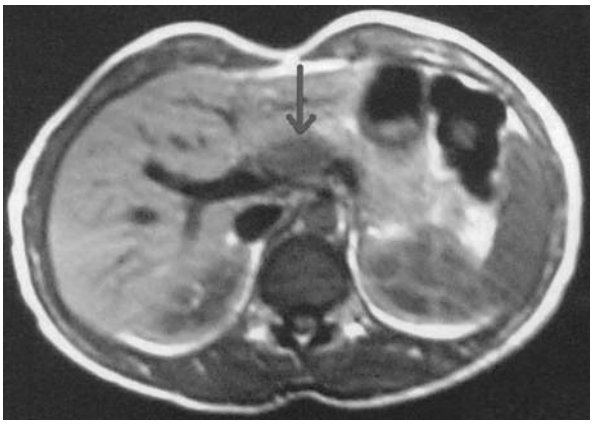

Figure 1. MRI showing mass. Arrow located near peripancreatic region

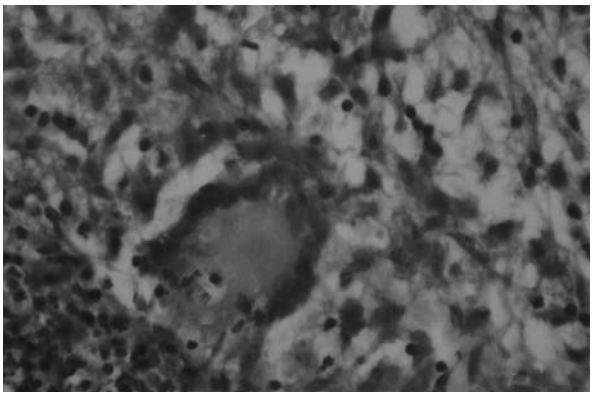

Figure 2. Histopathological examination revealed Langhans type giant cells (400 X)

DISCUSSION

Tuberculosis of the peripancreatic lymph node is rarely seen. In countries with high endemicity for tuberculosis it is more widespread than in developed countries and it remains a clinical diagnostic problem (1, 2). Focal peripancreatic involvement is even a rarer situation, which may mimic a carcinoma of the pancreas or acute or chronic pancreatitis or present with biliary obstruction (1, 6). Even at laparotomy, the peripancreatic mass with lymphadenopathy resembled a carcinoma of the pancreas (3).

Most patients with peripancreatic tuberculous lymphadenitis have no specific symptoms. Abdominal pain, anorexia, and weight loss are the symptoms of a carcinoma of body and tail of the pancreas, but these are also the symptoms of abdominal tuberculosis (3). Patient's age, race, clinical features, lung x-ray and tuberculin test can assist in the diagnosis. In adult patients with pancreatic tuberculosis, the probability of findings suggesting tuberculosis is 30% in lung x-ray. Contact history and tuberculin positivity in adults are not as important as in children. According to a study including 16 patients with pancreatic and peripancreatic lymph node tuberculosis, the most common symptom was abdominal pain followed by fever, night sweats, back pain and jaundice. In laboratory examination, anemia, lymphocytopenia or pancytopenia, elevated liver function tests and increased sedimentation rate were found (7). The diagnostic criteria for abdominal tuberculosis include a positive tuberculin test, the presence of characteristic granulomas, and the demonstration of mycobacteria by staining and culture techniques. Bacteriological confirmation is not possible in many patients (3). It was also reported that tuberculosis could be diagnosed by polymerase chain reaction of ascites from which the culture was negative for tuberculosis (8, 9). Increased adenosine deaminase is a diagnostic method in patients with tuberculous ascites (10).

Ultrasonography reveals that a mass <2 cm can be seen uniformly; those >2 cm can show heterogeneity. CT is important to distinguish peripancreatic lymphadenitis and Hodgkin's or non-Hodgkin's lymphoma (10, 11). US and CT are effective in the diagnosis as well as in follow up after treatment (8). MR imaging shows enlarged lymph nodes in patients with peripancreatic tuberculous lymphadenitis (12).

Incisional biopsy has been renounced because it commonly leads to fistula. In recent years, fine needle aspiration biopsy (FNAB) has been used instead of surgical biopsy for diagnosis and follow up (13). Studies have reported sensitivity and specificity of FNAB as 80% and 90%, respectively (11). However, aspiration of material from mesenteric lymph nodes or peripancreatic tumors may be difficult. It is emphasized that the diagnosis should be verified by examination of tissue, even inoperable lumps of the pancreas, to confirm their nature and to exclude peripancretic tuberculosis, which is curable (1). Acid fast bacilli have not been demonstrated at any time in histopathologic examination (14). Especially in young patients who present with a mass in the pancreas, pancreatic tuberculosis should be considered in the differential diagnosis, particularly in developing countries and in immunosuppressed individuals (6).

It has been reported that tuberculosis is prevalent in acquired immunodeficiency syndrome (AIDS) patients who present with an atypical form of tuberculosis. It is now apparent that 36% of AIDS patients develop tuberculosis, and in 76% of such cases it is extrapulmonary (9, 13).

When the tuberculosis cannot be localized, laparotomy is necessary for correct diagnosis. The surgical procedure is useful when involvement of the great vessels and abscess formation are present and when malignancy cannot be distinguished. The histopathologic examination confirms the coexistence of pancreatic malignancy. Surgical treatment is unsuccessful without antituberculous chemotherapy in this form of lymphadenitis.

In conclusion, this case report illustrates the high degree of suspicion required to diagnose peripancreatic tuberculous lymphadenitis based on clinical and laboratory features; needle biopsy is the primary method for definitive diagnosis. An inadvertent puncture or suspected tumor mass indicates abdominal exploration. Treatment of peripancreatic tuberculous lymphadenitis consists of antituberculous regimens. In endemic countries, tuberculosis should be considered and aimed for definite diagnosis for tumoral mass located in the peripancreatic region.

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