Tuberculous Mesenteric Lymphadenitis Simulating Cystic Pancreatic Head Cancer

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Abstract=A case of tuberculous mesenteric lymphadenitis is reported. Radiologic findings including computed tomography simulated those of cystic pancreatic head cancer. Diagnosis could be established only after a laparotomy was performed. Abdominal tuberculosis should be included in the differential diagnosis of pancreatic mass.

Key Words: Tuberculous mesenteric lymphadenitis, Abdominal tuberculosis, Pancreatic mass

INTRODUCTION

Diagnosis of abdominal tuberculosis can be difficult because of its protean manifestations. It is often not considered in the differential diagnosis of abdominal disorders, particularly when tuberculosis is not present elsewhere. In the era of computed tomography, although there has been much improvement in the evaluation of abdominal disorders, the differential diagnosis of an abdominal mass, especially a pancreatic mass, could sometimes be a perplexing problem for clinicians. Here, we present a case with very unusual clinical and radiologic features whose diagnosis proved to be tuberculous mesenteric lymphadenitis simulating cystic pancreatic head cancer in its computed tomographic findings.

CASE REPORT

A 40-year-old female was admitted because of an epigastric pain for 3 months. She complained of intermittent dull epigastric pain which occurred from about 30 minutes after a meal and lasted for several hours postprandially. The pain didn't radiate to the back or to the flank and was not relieved by antacid or defecation. She denied pulmonary symptoms such as cough, sputum, dyspnea, or night sweat and didn't have a past history or family history of tuberculosis. She didn't have any history of trauma or severe epigastric pain which could be considered as acute pancreatitis. On admission, the patient was thin and in chronic debilitative state. Physical examination was unremarkable except for mild epigastric tenderness. There was no crackle or palpable lymph node.

Laboratory data showed mild anemia (Hb 10.2 gm/dl) and reversed A/G ratio (3.9/4.0). The ESR was 92 mm/hr, and the level of C-reactive protein was 3+. The total and differential counts of WBC were essentially normal. The levels of serum amylase, lipase, CEA, and CA-125 were 88 U/dl (normal, 60 to 180 U/dl), 0.1 U/ml (normal, 0 to 1 U/ml), 1.1 ng/ml (normal, 0 to 2.5 ng/ml), and 23 U/ml (normal, 2 to 48 U/ml), respectively. Other laboratory data including liver function test, urinalysis, stool examination, BUN, creatinine, electrolyte, VDRL, calcium, phosphorus, cholesterol, triglyceride, HDL-cholesterol, EKG, and coagulation te-
Fig. 1. A) A CT scan through upper-abdomen. A large, multi-septated irregular mass in pancreatic head area (arrow). A = aorta, IVC = inferior vena cava, LK = left kidney.
B) Area 3 cm below A. Multi-loculated appearance with rim enhancement with intravenous contrast medium (arrow). A = aorta, LK = left kidney, RK = right kidney.
Although intra-abdominal tuberculosis has been re-
mounted or disseminated (Hamdan et al. 1996) immu-
ne deficiency syndrome and other excreta-
neous disease and tuberculosis is common in patients with acquired -
uncontrolled disease and tuberculosis still occurs in develop-
and abdominal tuberculosis is still a common

**DISCUSSION**

Ion with casseion necrosis (Fig. 2) of them showed chronic granulomatous inflammation -
real head area were noticed. The biopsy of one -
the superior mesenteric vein and around the pancre-
until the lymph nodes at the mesenteric root around -
without any evidence in the periosteal cavity. Swellings of -
operation there were no ascites, adhesions -

**Fig. 2.** Microphotograph of a lymph node. A ulcerate with central casseion necrosis and epithelial cells (H&E)

exploration laparotomy for a definite diagnosis.
the ulceration skin test was positive. She received an -
acid-fast staining showed no acid-fast bacilli. A -
and many inheirant cells but no malignent cells. -
The aspirated material was amorphous and concol-
son-guaided aspiration of the cyst was done.

Lever and spleen were normal. The -
body and tail of the pancreas looked normal. The -
real head area (Fig. 1a, b) showing no lesions in the pancre-
ion in the CBD or in the pancreatic duct. The distal -
showed multi-separated cystic masses in the pancre-
and low-resorctor lesions in the pancreatic head -
onographic examination of the abdomion shon -
mal finding -

**Materials**

-fibroptic gastroscopey, as well as simple X-ray

of acid-fast bacilli in sputum were negative, 3 times -
sis were within normal limits. The smear and culture -

slaming, x40).
ported rarely in this setting, it may become more common (Barnes et al. 1986). Also, tuberculous peritonitis is an uncommon complication of continuous ambulatory peritoneal dialysis (Holley et al. 1982; Ludiam et al. 1986; Cheng et al. 1989).

The protean manifestations of intraabdominal tuberculosis sometimes make it difficult for clinicians to consider the possibility of tuberculosis in the differential diagnosis of abdominal disorders, particularly when tuberculosis is not present elsewhere. It may present as gastrointestinal tuberculosis, tuberculous peritonitis, or mesenteric lymphadenitis. Typical symptoms of abdominal tuberculosis are fever, abdominal pain, loss of weight, and other gastrointestinal disturbances (Barrow et al. 1943; Bhansali, 1977; Wells et al. 1986; Jakubowski et al. 1988). However, it may present with acute manifestations such as intestinal obstruction, perforation, or simulated acute peritonitis due to ruptured lymph nodes (Bhansali, 1977). It may also present with intraabdominal masses resembling a carcinoma of the pancreas or lymphoma. It is in this type of presentation that computed tomography may prove valuable. Bhansali (1977) reviewed 300 cases of intraabdominal tuberculosis, 96 of which had palpable lumps. At operation, the tumefaction was found to be due to hyperplastic cecal tuberculosis, enlarged lymph nodes, and/or rolled-up omentum. In spite of the widespread applications of ultrasonography and computed tomography in abdominal disorders, only a few reports have described the features of computed tomography in abdominal tuberculosis. Despite the small number of cases, 5 features consistent with a CT diagnosis of intraabdominal tuberculosis are suggested: (1) irregular soft tissue densities in the omental area; (2) low-density masses surrounded by thick solid rims; (3) a disorganized appearance of soft-tissue densities, fluid, and bowel loops forming a poorly defined mass; (4) low-density lymph nodes with a multilocular appearance after intravenous contrast medium producing a multi-loculated appearance would prove to be characteristic of tuberculous nodes with caseation necrosis. In this case, the multi-septated cystic masses in the pancreatic head area on computed tomography also proved to be multiple enlarged mesenteric lymph nodes with caseation necrosis.

Gastrointestinal tuberculosis often induces vague symptoms, and this may partly explain the delay in presentation of some patients. Although abdominal pain, loss of weight, fever, diarrhea, malaise, and abdominal distension are the most common presenting symptoms, none of these is pathognomonic for tuberculosis (Wells et al. 1986). Several blood tests are often abnormal, but they are also nonspecific. An abnormal chest x-ray is seen in less than 50% of cases with abdominal tuberculosis (Shukla and Hughes, 1978; Lambrianides et al. 1980; Addison, 1983). A positive tuberculin skin test does not suggest active tuberculosis in developing countries, and also a negative test does not exclude an active disease (Gonnella and Hudson, 1966; Dineen et al. 1976). For these reasons, abdominal tuberculosis was overlooked in this case. Because the radiologic features of tuberculous lymphadenitis had not been described in sufficient numbers, we experienced confusion in reaching a proper diagnosis. Similarly, although sonographic and computed tomographic findings in this case mimicked those of cystic pancreatic neoplasms, other tests including blood chemistry, tumor marker studies, aspiration cytology, and culture didn't give any suggestion of a pancreatic cancer. But, although elevated levels of CEA, CA-125, or CA 19-9 favors the diagnosis of a malignancy, normal values of these tests does not exclude it necessarily. These tests are not sensitive enough to exclude the possibility of a malignancy (Haglund, 1986; Haglund et al. 1986; Steinberg et al. 1986). Likewise the absence of malignant cells in aspiration cytology cannot exclude the possibility of a malignancy. Repeated aspirations for acid-fast staining or fine needle biopsy might be helpful in arriving at a correct diagnosis without operation in this case.

Abdominal tuberculosis is not a relic of the
past and seems to be a new challenge in the developed countries as the number of patients with acquired immune deficiency syndrome continuously increases. Just as in this case, in many patients with abdominal tuberculosis, the diagnosis was established at operation and by the appearance of caseating granuloma in the histologic examination and isolation of the causative organism (Wells et al. 1986). Further radiologic features including the CT features of abdominal tuberculosis should be described in order that laparotomy be avoided and less invasive procedures be instituted. Also, in cases with suggestive radiologic findings in the appropriate clinical setting, abdominal tuberculosis should be included in the differential diagnosis of many abdominal disorders.

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전산화 단층 활영을 포함하는 방사선학적 소견이 남포성 척두부암과 유사했던 결핵성 장간막 입파선염의 환자 1례를 보고하는 바이다. 이 증례에서는 여러 진단적 검사가 시행되었지만 개복 수술 후에야 확진을 내릴 수 있었다. 복부 결핵은 제장 종괴의 감별 진단에 반드시 포함되어야 한다.