CASE REPORT

Pancreatic Tuberculosis Presenting With Recurrent Acute Pancreatitis

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Summary

Tuberculosis, in its extrapulmonary form, though emerging as a common clinical problem, rarely affects the pancreas. Its indolent course, vague symptomatology along with its non-specific laboratory and radiographic findings call for greater vigilance.

We report a case of pancreatic tuberculosis, previously managed as recurrent alcohol related pancreatitis which showed symptomatic improvement following commencement of antituberculosis drugs. The diagnosis of pancreatic tuberculosis in this case was based on the abdominal CT scan findings, response to anti-tubeculous chemotherapy and overall laboratory and radiological work-up.

Key Words: Recurrent pancreatitis, Tuberculosis

Introduction

Gastrointestinal involvement has been noted in 12% of patients with tuberculosis[1]. The terminal ileum, ascending colon, liver, spleen and mesenteric lymph nodes are commonly involved in miliary tuberculosis[2]. The incidence of pancreatic tuberculosis however has been found to be 2.1% to 4.7% in autopsies of patients with miliary tuberculosis[1]. Owing to its vague presentation and non-specific investigation findings, diagnosis is often delayed.

Case Report

A 50-year-old Indian man, came under our care for further evaluation of his recurrent epigastric pain, which had persisted for six months. He had lost almost 10 kg over the preceding six months but denied loss of appetite, night sweats or cough. There was no history of pulmonary tuberculosis or contact with individuals with tuberculosis. In the past he underwent laparoscopic cholecystectomy performed for gallstone disease, which was uneventful. He used to consume alcohol but had stopped for 5 years. He was a smoker. He had been admitted twice over the previous six months with recurrent pancreatitis secondary to alcohol. The first admission was in September when he presented to the casualty department with severe epigastric pain. The serum amylase on that admission was 9228u/l. The abdominal ultrasound revealed a coarse liver and a homogenous pancreas with no peripancreatic fluid collection. He was treated conservatively and was well when discharged with his serum amylase level on a decreasing trend. In early January 2000, he had a recurrence of symptoms. The serum amylase level was again elevated at 974u/l. He responded to treatment for acute pancreatitis secondary to alcohol consumption and was discharged.

On follow-up however, he was still suffering from intermittent epigastric pain and was re-admitted. He also complained of intermittent dry cough of recent onset. Examination revealed a medium built gentleman. He was noted to have gross clubbing of his fingers and gynaecomastia. He was not

jaundiced. The blood pressure on admission was 110/70 mmHg with a pulse rate of 72 beats per minute and he was afebrile. There was a two-finger breadth tender hepatomegaly but no splenomegaly, ascites or peripheral lymph node enlargement.

Preliminary investigations revealed a haemoglobin level of 13.4 g/dl, total white cell count of 10,000/l and a platelet count of 267,000/l. His fasting blood sugar was mildly elevated at 10mmol/l. His serum amylase and alkaline phophatase levels were both raised at 884u/l and 155u/l, respectively. The rest of the parameters including the alanine transaminase, total protein, albumin, bilirubin levels and prothrombin time, lactate dehydrogenase, carcinoembryonic antigen, alpha-fetoprotein levels, renal profile, serum calcium and phosphate were normal. His viral hepatitis screening tests were also negative.

The chest radiograph revealed multiple cavitating lesions in the right upper and middle zones. Screening for pulmonary tuberculosis revealed an ESR of 20mm/hr and consecutively negative sputum direct smear examination for acid-fast bacilli (AFB). Mr. SM however exhibited a reactive Mantoux test (22mm). He was commenced on a combination of isoniazid 300mg daily, rifampicin 600mg daily, pyrazinamide 1500mg daily and pyridoxine 10mg daily.

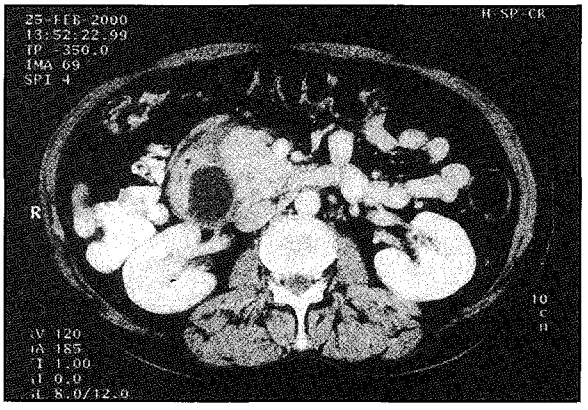

Fig 1 : Cross sectional view of the pancreas demonstrating a multicystic mass in the head of the pancreas with surrounding peripancreatic fluid collection

An upper gastrointestinal endoscopy revealed erosive antral gastritis with superficial ulcers and Grade 3 reflux oesophagitis. He was commenced on lansoprazole 30mg bd. We later proceeded with an endoscopic retrograde cholangiopancreatography (ERCP) where a stenotic duodenum with a suspicious looking ampulla was seen. A provisional diagnosis of ampullary tumour was made and we proceeded with an abdominal CT (computed tomography) scan (Figure 1) for further evaluation of the lesion. Abdominal CT scan showed a multicystic mass in the head of the pancreas with dilatation of the pancreatic ducts. Significant amount of peripancreatic fluid was present. The biopsy taken during the ERCP was reported as normal mucosa with inflammatory changes and was devoid of malignant transformation or granulomas. The abdominal CT suggested several diagnoses including cystadenoma, adenocarcinoma or pancreatic tuberculosis. Therefore, based on his clinical history, laboratory and radiological findings, tuberculosis of the pancreas is the most likely diagnosis. Mr. SM was later discharged on the same combination of antituberculosis drugs. On follow-up a month later, Mr. SM had shown significant symptomatic improvement with complete disappearence of abdominal pain. A follow up CT scan performed 6 weeks post treatment has shown improvement in appearances with normal pancreatic enhancement and no peripancreatic collections. The cystic peripancreatic masses, although still present, have shown regression in size.

Discussion

Pancreatic tuberculosis itself is a rare clinical entity. Clinical features of pancreatic tuberculosis are usually non-specific as exhibited by our case. A.W.J. Jenny et al reviewed 37 cases of pancreatic tuberculosis in the English literature[4] and found that abdominal pain was the commonest symptom (69.7%); followed by weight loss (57.5%) and fever (45.5%). Other symptoms include anorexia (30.3%), jaundice (15.6%) and per rectum bleeding (6.1%). Recurrent pancreatitis as a presenting feature has not been documented in the literature.

Patients with pancreatic tuberculosis often require sophisticated investigations. Chest radiographs have been found to be normal in 90% of patients with abdominal tuberculosis[1]. These patients usually have reactive tuberculin skin test, high ESR and abdominal CT or ultrasound findings mimicking pancreatic carcinoma[2]. In the literature, the majority of pancreatic tuberculosis cases was reported as either

'pancreatic tuberculosis presenting as pancreatic carcinoma' or as 'pancreatic abscess'. In a study of patients with pancreatic tuberculosis[3], the spectrum of CT findings was identified. In HIV-seronegative individuals, pancreatic tuberculosis was often characterised by a non-specific focal lesion in the pancreas. The findings of periportal or peripancreatic adenopathies with peripheral rim enhancement along with evidence of disseminated tuberculosis has been generally agreed to favour tuberculous involvement of the pancreas[3]. On CT, tuberculosis appears to have a predeliction for the head of the pancreas (53%), whereas the body and tail region are affected in 25% of cases and the whole pancreas is involved in 13% of cases[2].

As laboratory and radiographic findings are often non-confirmatory, many clinicians may resort to histological studies for confirmation. In a review of 20 cases[1] of pancreatic tuberculosis, eight patients had granulomas only, five had both granulomas and AFB, three had AFB and positive bacteriological culture, one patient had AFB, granulomas and positive culture and three patients had positive cultures only. Needle aspiration under ultrasound or CT guidance has been proposed as an adjunct to diagnosis but its diagnostic yield is often operator dependent.

In terms of treatment, patients are usually subjected to 9 months of antituberculosis therapy. In an immunocompetent individual, treatment is often successful[1]. The mortality from pancreatic tuberculosis in immunocompetent individuals is about 7%.

In conclusion, pancreatic tuberculosis presenting as recurrent pancreatitis is rare. The diagnosis should be considered in patients presenting with recurrent symptoms and the radiographic findings described above. Histological examination whenever possible may be helpful to confirm the diagnosis. However it is not mandatory in cases where the diagnosis is highly likely. Treatment is highly successful in immunocompetent individuals.

References

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