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Tuberculosis Of Distal Common Bile Duct Mimicking Cholangiocarcinoma

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Abstract

Abdominal tuberculosis is one of the most common forms of extra pulmonary manifestations and collectively refers to gastro intestinal, pancreatic, splenic abdominal lymphadenopathy and hepatobiliary involvement. The clinical features and radiological investigations can be nonspecific and mimic many conditions including malignancies. Biliary tuberculosis is a rare manifestation of mycobacterium tuberculosis infection and is usually secondary to tuberculosis of the lungs or gastro-intestinal tract. The most common clinical symptom is Obstructive jaundice along with weight loss and so can be confused with hepatobiliary and pancreatic malignancies. It is difficult to interpret with diagnostic imaging techniques like ultra sonography (U/S), computed tomography (CT), endoscopic retrograde cholangiography (ERCP) and endoscopic ultra sonography (EUS) which may be misleading. Here we report a case of obstructive jaundice which was thought to be Cholangiocarcinoma but diagnosed as Granulomatous lesion on histopathology.

Keywords: Cholangiocarcinoma, Hepatobiliary tuberculosis, Obstructive jaundice

Introduction

Tuberculosis infection is one of the common mycobacterial infection in under developed and developing nations and an important cause of morbidity. Atypical presentations of hepatobiliary involvement by tuberculosis can be effected either as a primary or as a part of widespread military tuberculosis or, it can be in the absence of pulmonary or military TB.[1] Isolated bile duct tuberculosis is extremely rare and only few conditions of intrahepatic tuberculosis but. The main symptom of TB biliary stricture including jaundice and weight loss are usually indistinguishable from those of other disease such as Cholangiocarcinoma.[2] Obstructive Jaundice due to biliary stricture is a rare presentation in tuberculosis and many cases of tuberculosis of gall bladder, duodenal and pancreatic stricture are reported.[3] Hepatic TB can be classified Local, military TB and Tuberculomas or granulomatous disease.[4] Hepatobiliary tuberculosis lack specific clinical features and therefore it is hard to differentiate from malignancies such as cholangiocarcionoma and hepatocellular carcinoma by using imaging techniques.[5] Radiological imaging doesnot helps many a times leading to diagnostic dilemmas. After informed consent we report a case presenting as metastatic distal cholangiocarcinoma but finally turned out to be a case of obstructive jaundice due to extrahepatic biliary stricture.

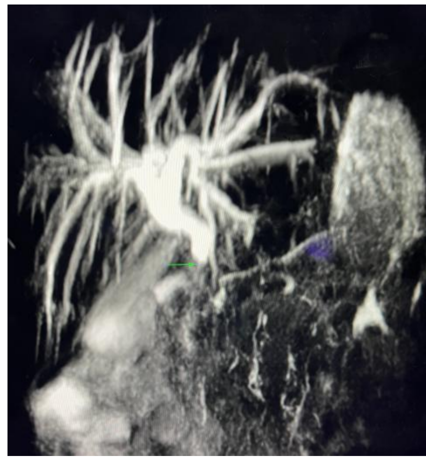
Case Report

A 26 year old male presented with painless obstructive jaundice since 10 months, weight loss of 10 kg in last 10 months and loss of appetite. Clinically there is no history of vomiting, altered blood in stools, no history of cough, hemoptysis,

chest pain and breathlessness. He had no history of Tuberculosis or contact with tubercular patients. On Examination he was ill looking, icteric and had non tender Right upper quadrant lump(Gall bladder). Investigations revealed Serum bilirubin of 4.5 mg/dl, Serum Alkaline phosphatase was 547 KAU (normal up to 12 KAU), SGOT, SGPT, Coagulation profile, Hemogram and renal function tests were normal. HIV serology was negative. Chest X ray was normal.

Ultrasound abdomen showed Gall bladder is mildly edematous with sludge, CBD is 12 mm in length, there was narrowing of distal CBD with abrupt cut off in intrapancreatic portion of CBD causing smooth proximal upstream dilatation of CBD, and intrahepatic biliary radicals. Contrast enhanced computed tomography (CECT) abdomen revealed intrahepatic biliary radicals dilatation, abnormal wall enhancement of distal CBD with abrupt tapering- ?malignant stricture. Magnetic resonance cholangio pancreaticogram (MRCP) of abdomen showed moderate intrahepatic biliary radical distension and narrowing of distal CBD is noted over a length of approximately 3 cm (mimicking malignant stricture, figure 1). Gall bladder is moderately distended with mild thickening of gall bladder and cystic duct wall with minimal intraluminal sludge. Preoperative ultrasound guided biopsy was not feasible.

Figure1: MRCP showing intra and extra hepatic biliary dilatation with distal CBD stricture



Case was posted for exploratory laparotomy followed by pancreaticoduodenectomy with a primary diagnosis of distal cholangiocarcinoma, Stony hard common bile duct and common hepatic duct was identified with multiple periportal, omental lymph nodes noted, a mass of 5 cm x 6cm noted near lesser curvature of stomach (mimicking malignant spread- Figure 3) and multiple peritoneal nodules bringing a propable diagnosis of metastatic klatskin tumor (Figure 2,3). Periportal, omental lymph node along with biopsy from mass lesion was taken and sent for Histopathology.

Figure2: Dilated gall bladder with mucus

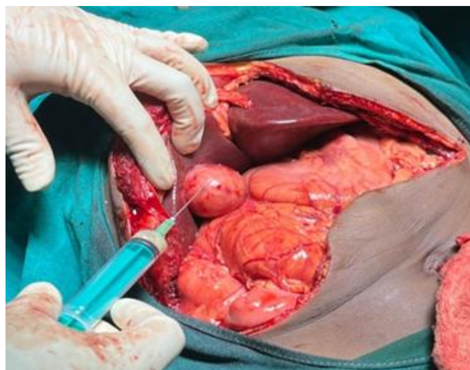


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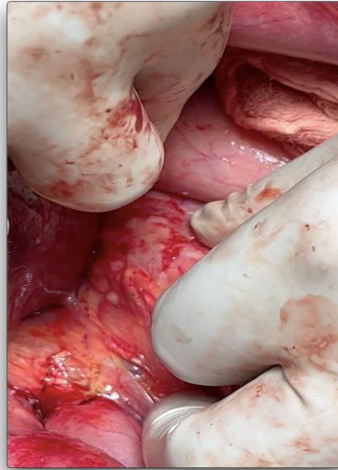
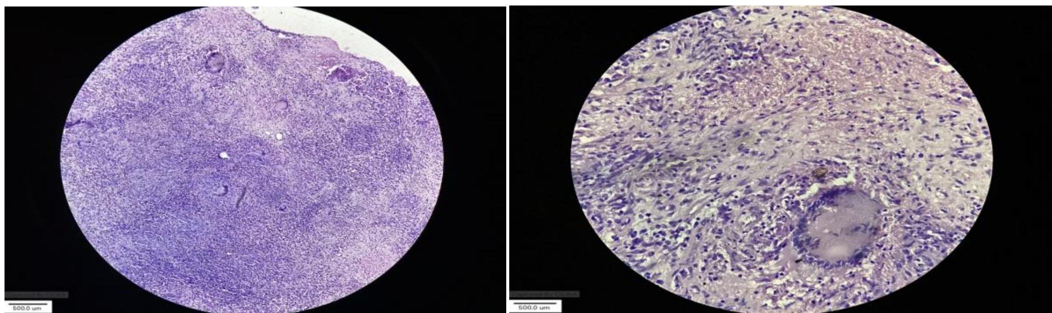
Figure3: Mass lesion near lesser curvature of stomach with nodules



Sections studied from excised lymph node shows epitheloid cells, Langhans type of gaint cells and necrosis surrounded by chronic inflammatory cells like lymphocytes along with fibroblasts and diagnosed as Necrotising Granulomatous lesion (Figure 4).

Figure 4: Microscopic picture lymph nodes showing granulomatous lesions with langhans type of giant cells in low and high power magnification.



Low power(100X) *High power(400X)*

Typical Morphological features of tubercular granuloma on Light microscopy. Acid fast bacilli (AFB) stain was done and was found to be negative. Polymerase chain reaction was positive for tuberculous mycobacteria and a final diagnosis of tuberculosis was made. Post operative recovery were uneventful. The patient is administered with non hepatotoxic antitubercular therapy 3months post surgery once bilirubin was less than 2 mg/dl on conservative management. He is found to be asymptomatic on follow up of over 12 months.

Discussion

Extra pulmonary tuberculosis is common in the tropical countries when compared to abdominal tuberculosis. It mostly affects, mesentery, intestine, peritoneum and lymphnodes, but hepatobiliary system involvement is rare and Isolated involvement of common bile duct and ampulla by tuberculosis is extremely rare.[6] Tuberculosis affecting common bile duct and periampullary region often forms strictures and tumor like lesions mimicking cholangiocarcinoma.[7]

Postnatally, tubercle bacilli can reach liver and biliary tree through hematogenous or lymphatic spread from primary pulmonary or intestinal tuberculosis and primary focus may get regressed subsequently.[8]

Biliary stricture can be due to various benign conditions like, granuloma, Mirizzi's syndrome, idiopathic benign focal stenosis, retroperitoneal fibrosis, eosinophilic granuloma, gastric heterotopia and infestations due to Ascaris lumbricoides or Clonorchis sinensis.[9] Either external compression by involved organs or by primary biliary tuberculosis

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can cause compression leading to obstructive jaundice and difficult to diagnose the cause preoperatively. These patients present with clinical symptoms like illness, weight loss and jaundice which may be misdiagnosed as malignancy preoperatively.[10] In our case, patient presented with loss of weight and obstructive jaundice and weight loss. Hepatic TB also shows increased FDG activity on F-18 FDG PET/CT as seen with other malignancies.[11]

Many a times extrahepatic biliary tract inflamed strictures as in xanthogranulomatous diaseas always lead to diagnostic dilemma as malignancy.[12] In\our case, the histopathological examination of periportal/omental lymphnode is Granulomatous lesion. The disease has a good response to antitubercular therapy. Diagnostic difficulties may result in resection surgeries, few authors have done pancreaticoduodenectomies.[13]

Conclusion

Hepatobiliary tuberculosis is not a common entity and needs high degree of suspicion in endemic areas if a patient presents with biliary stricture leading to obstructive jaundice. Present case highlights a diagnositic dilemma related to atypical presentation of abdominal tuberculosis like hepatic origin leading to major surgical resections. Histopathological examination of tissue is the only way to diagnose a granulomatous lesion for better prognosis.

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