International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

Biliary Tuberculosis Mimicking Cholangiocarcinoma - A Case Report

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Abstract: ***Gastrointestinal tuberculosis (TB) is not uncommon in developing countries[1], but involvement of the bile ducts and gallbladder is extremely uncommon[2,3]. Most of the previous reports indicated that biliary obstruction was due to enlarged tuberculous lymph nodes compressing the bile duct[4-9]. Only a few cases of biliary stricture due to tuberculous involvement of the bile ducts have been reported previously[10 -12]. Herein, we present a case of extrahepatic ductal TB that presented clinically with obstructive jaundice due to biliary stricture and treated successfully with ATT and Endotherapy.***

Keywords: Bile duct, Tuberculosis, Jaundice, Biliary Stents

1. Introduction

Biliary stricture as a presentation of Tuberculosis is quite uncommon. We here by describe a case of tuberculosis causing biliary stricture masquerading as biliary malignancy.

2. Case Report

A 35-yr-old woman presented with itching of 8 months duration, intermittent fever and progressive cholestatic jaundice for 10 days. The only significant feature in the past medical history was adhesiolysis and hysterectomy performed 6 years back. There was no history of anorexia, weight loss and fatigue. Physical examination revealed jaundice and mid line abdominal scar. There was no hepatosplenomegaly or palpable gallbladder. Laboratory findings were consistent with obstructive jaundice. Total serum bilirubin was 3.4 mg/dl, alkaline phosphatase 140 U/L, GGT 120 U/L. HIV serology and Mantoux test was negative. **USG abdomen** showed dilated, tortuous CBD , Central IHBRD, attenuated portal vein, portal cavernoma formation, thickened GB wall with sludge and a complex ovarian cyst . CA 19- 9 was 10.30 U/ml , **MRCP** (fig.1) showed Dilated CBD (max diameter 16mm) ,CHD and IHBR with distal CBD stricture. There was no intraluminal filling defect in CBD. Liver showed 2.5 X 2 cm heterogenous lesion in caudate lobe and 1 X 1 cm hypointense lesion in segment VI. Portal cavernoma noted. Gall bladder was distended showing mild wall thickening and intraluminal debris- s/o Chronic Cholecystitis. **Triphasic CT abdomen** (fig.2a & 2b) showed Ill-defined poorly enhancing mass lesion in portocaval location with encasement and narrowing of CBD and main portal vein – likely neoplastic; Complex left adnexal lesion was also noted.

The patient was thought to have cholangiocarcinoma based on these clinical and radiological findings. ERCP was performed and dilatation of stricture was done with soehendra dilators before inserting a plastic stent (fig.3). Brush cytology showed fragments and clusters of cuboidal to columnar cells with basally located nuclei, occasionally inflammatory cell infiltrate and associated reactive changes. There were no definitive malignant cells in smear. Ultrasound guided FNAC of liver SOL showed smears which are paucicellular and singly scattered and clusters of benign looking hepatocytes. Cytological features of hepatocellular carcinoma was not seen. EUS guided FNA and periportal mass biopsy was done. Cytology revealed lymphocyte aggregates along with necrotic areas, neutrophil collections and blood – suggestive of necrotising lymphadenitis. There were no atypical cells. Histology showed necrosis with polymorphous lymphoid cells and epithelial cells, occasional AFB was noted. A diagnosis of Necrotising lymphadenitis due to Tuberculosis was made and ATT was initiated.

3. Discussion

Benign biliary strictures present with clinical problems different from those of malignant strictures, because the life expectancy of these patients is much longer and is not tumor-related[13]. Benign biliary strictures fall into two etiological groups: traumatic (postoperative, blunt, or penetrating injury) and nontraumatic (stone related, sclerosing cholangitis, recurrent pyogenic cholangitis, chronic pancreatitis, Mirizzi syndrome, portal biliopathy, IgG4 disease, intra-arterial chemotherapy/embolization). The site and number of strictures depend on the cause[14]. The etiology of stricturing is usually evident from clinical and cholangiographic information. Benign inflammatory strictures due to sclerosing cholangitis, pancreatitis, or the Mirizzi syndrome tend to be of longer length and may be difficult to differentiate from malignant strictures (especially from diffuse sclerosing-type cholangiocarcinoma)[14, 15]. Although rare, cholangiocarcinoma represents one of the most common neoplastic causes of biliary obstruction.

Tuberculosis is a rare cause of biliary obstruction. The intrahepatic biliary tree can occasionally be infected by

bacilli [2, 3, 11], but TB of the extrahepatic biliary tree is extremely rare[10 -12]. Most of the previous reports indicate that biliary obstruction due to TB was caused by enlarged tuberculous lymph nodes compressing extrahepatic ductal system at different levels [4-9]. Duodenal TB and pancreatic TB are also reported in the literature as rare causes of biliary obstruction [16-17].

Our case of extrahepatic biliary tree tuberculosis mimicked cholangiocarcinoma radiologically. The diagnosis was made after elaborate investigation and processing tissues by all possible modalities. Probability of non malignant cause was strengthened as CA 19-9 was negative. Fan *etal.*[10] reported the first case of biliary stricture due to TB involvement of common hepatic duct without periductal TB lymphadenitis. Initial diagnosis was cholangiocarcinoma and explorative laparotomy was unsuccessful both for obtaining pathologic diagnosis and for surgical bypass. Definite diagnosis was obtained with choledochoscopic direct biopsy of the ductal mucosa through the percutaneous tract. Because surgical bypass was impossible, anti-TB therapy and placement of an endoprothesis was the choice of treatment in their case. They reported that endoprothesis successfully relieved the biliary obstruction.

Removable covered SEMS is an option in relieving the strictures. Recently usha et al(18) from Chandigarh, India published a case of fever and Jaundice initially suspected to be cholangiocarcinoma and later biopsy proven to be biliary tuberculosis and treated with ATT.

Biliary tuberculosis is a rare entity that needs high degree of suspicion in young patients with biliary stricture presenting with fever before onset of jaundice. A tissue diagnosis should always be attempted where ever feasible. A negative diagnosis may not help but a positive diagnosis may definitely suggest a benign cause, the prognosis of which is definitely better if treated early. Our case illustrates the importance of tissue diagnosis in all cases of obstructive jaundice and medically curable diseases. Additionally treatment of the tubercular biliary stricture with plastic stent and ATT would be ideal after obtaining tissue diagnosis.

4. Conclusion

Biliary tract involvement with Tuberculosis is quite rare, particularly CBD infiltration without lymphnodal disease. Our case was confirmed histologically and the patient responded well to first line ATT.

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Figures

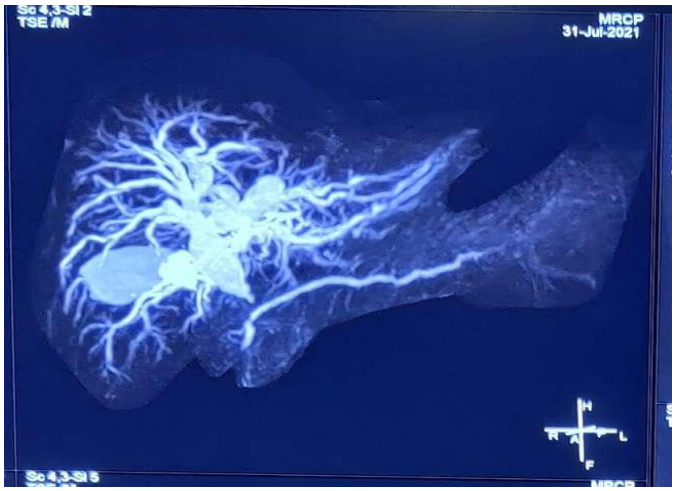

Figure 1

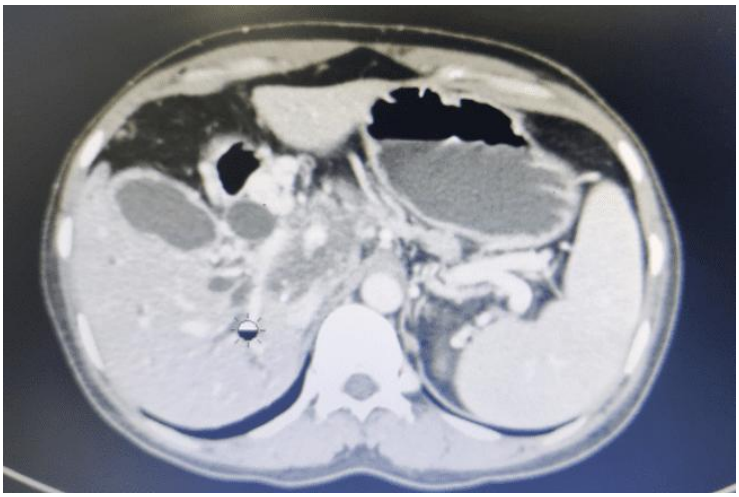

Figure 2 (a)

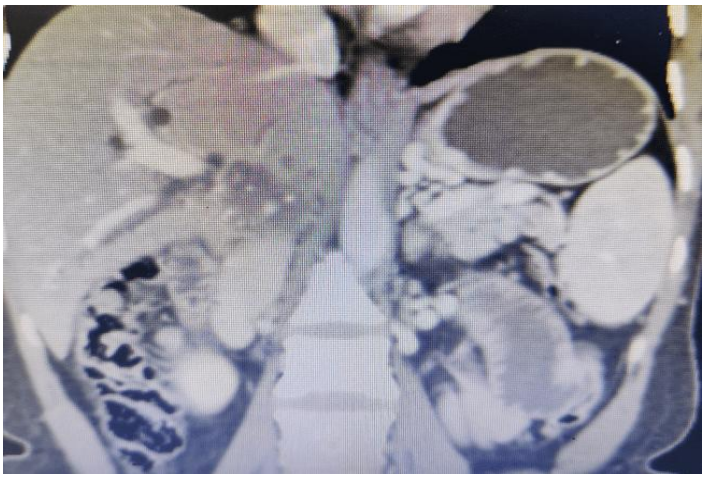

Figure 2 (b)

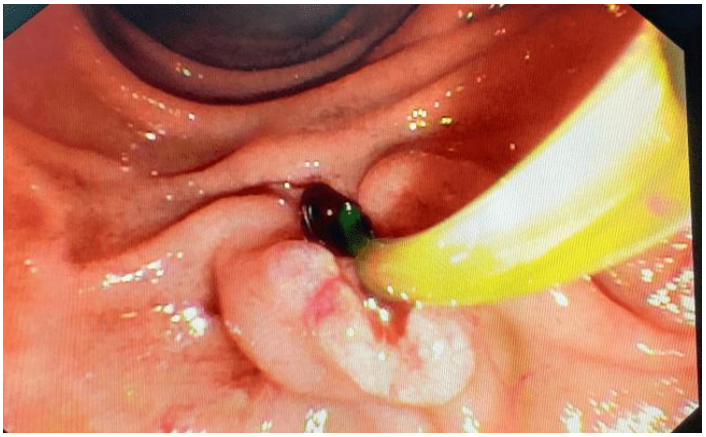

Figure 3 (a)

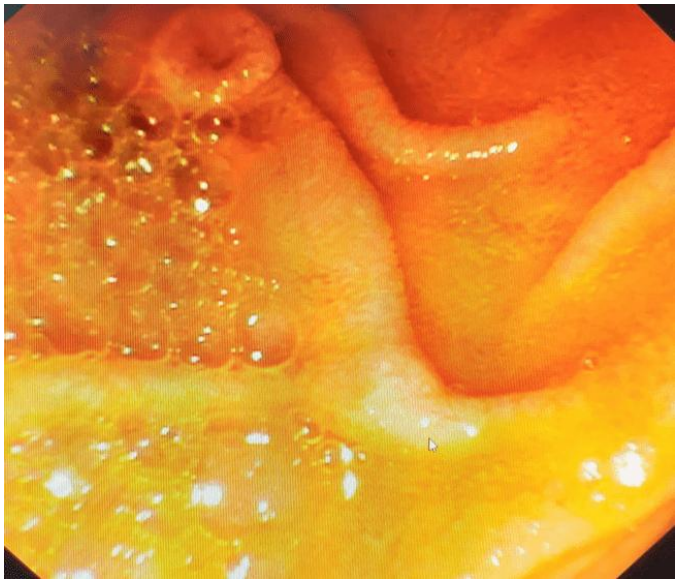

Figure 3 (b)

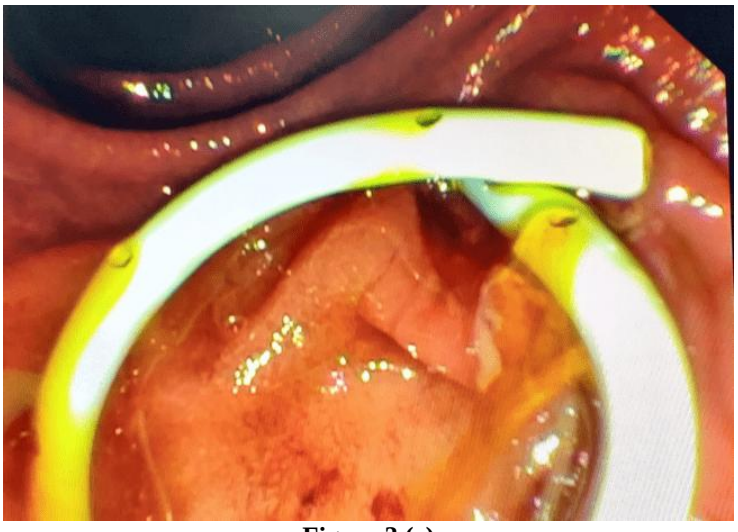

Figure 3 (c)