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Benign Nontraumatic Inflammatory Stricture of Common Hepatic Duct Mimicking Malignant Tumor: A Case Report

KEYWORDS: common hepatic duct,CHD strictures,common hepatic duct malignancy.

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ABSTRACT *Benign nontraumatic inflammatory stricture of Common bile duct (CBD) may result in obstructive jaundice, which can be misdiagnosed as a malignant tumor of the CBD preoperatively. A case with stricture of the common hepatic duct presenting with obstructive jaundice is reported herein. Preoperative radiological studies prompted us to confidently make the diagnosis of cholangiocarcinoma. However, the postoperative diagnosis on histological examination of the resected lesions was chronic inflammation and fibrosis.*

INTRODUCTION

Malignant bile duct strictures are mainly the result of cancer of the ampulla of Vater, pancreas, or bile duct, and account for most patients presenting with obstructive jaundice secondary to extra-hepatic bile duct stricture. Benign nontraumatic inflammatory strictures of the extra-hepatic bile duct are extremely rare with the exception of primary sclerosing cholangitis[1-3].Most benign strictures reported in the literature are located in the hepatic hilum[4] or distal common bile duct (CBD). Here we reported a case of benign nontraumatic inflammatory strictures of the the CHD with painless obstructive jaundice. They were confidently diagnosed as cholangiocarcinoma by radiological studies preoperatively.

CASE REPORT

A 47 year-old female who had tea-colored urine and yellowish skin discoloration for about 2 wk. No abdominal pain or body weight loss was reported. The physical examination was unremarkable except icteric sclera. A complete blood count was within normal limits. Serum total bilirubin/direct bilirubin (TB/DB) 5.20/4.00 mg/dL (normal 0.2-1.6/0-0.3 mg/dL), alanine aminotransferase (ALT) 61 IU/L (normal 8-20 IU/L), asparate aminotransferase (AST) 49I U/L (normal 5-45 IU/L), alkaline phosphatase (ALK-P) 310 I U/L (normal 36-113 IU/L) .

Abdominal sonography showed significantly dilatation of the intrahepatic ducts and CBD.Minimally distened GB filled with biliary sludge and tiny gallstones.Large hyperechoic lesion at portal triad (32x 27)(gallstone/ mass lesion) .The contrast-enhanced abdominal CT scan showed cholelithiasis,.Moderate dilatation of IHBR in both lobes of liver upto confluence. Further evaluation with ERCP is suggested.MRCP revealed cholelithiasis.marked IHBR dilatation in both the lobes of liver with abrupt cut off at the confluence.Possibility of a lesion like cholangiocarcinoma needs consideration.ERCP suggested.

ERCP revealed a stricture at hilar level.-?Cholangio-carcinoma.Brush cytology was taken from strictured area.10 Fr.stent was placed above the stricture. Tumor markers CA19-9 and CEA were not elevated. After ERCP Serum total bilirubin/direct bilirubin (TB/DB)1 5.02/12.50 mg/dL (normal 0.2-1.6/0-0.3 mg/dL), alanine aminotransferase (ALT) 33.59 IU/L (normal 8-20 IU/L), asparate aminotransferase (AST) 42.43I U/L (normal 5-45 IU/L), alkaline phosphatase (ALK-P) 782I U/L (normal 36-113 IU/L) .A diagnosis of CHD stricture was made. At surgery, a firm lesion 2 cm ×3 cm in size at the CHD was palpated.Narrowing was present below CHD.Stent was present in CBD below the stricture segment.Stent was not crossing stricture .So LFT was not decreasing.CBD was normal. Cholecystectomy and Roux-en-Y hepaticochojejunostomy, end-to-side, and jejunojejunostomy was then performed. Stent removed.However, the postoperative histological examination of the lesion showed chronic inflammatory process with marked fibrosis.No evidence of maliganancy. Two stones was detected in the Gallbladder with cholecystitis.

DISCUSSION

The clinical presentation and preoperative radiological studies without tissue or cytological proof led us to the diagnosis of common hepatic duct stricture in this case. It has been agreed that any localized extra-hepatic bile duct obstruction coexisting with intra-hepatic bile duct dilatation should be considered as malignancies such as cancer of the ampulla of Vater, pancreas, or bile duct (cholangiocarcinoma) until proven otherwise[5]. This agreement arose because of the difficulty in obtaining a tissue diagnosis in patients with obstructive jaundice caused by a hepatic duct stricture. Application of improved diagnostic methods, such as thin-section spiral CT and magnetic resonance cholangiopancreatography, can potentially increase the diagnostic accuracy, but neither could reliably differentiate malignant from benign lesions[6,7]. Preoperative histological or cytological examination by means of biopsy or brush cytology was often difficult and liable to false-negative results with low sensitivity and could carry a potential risk of needle tract metastases[8-12]. The lack of a tissue or cytological evidence might result in some patients being inappropriately treated as malignant disease when a benign stricture was present and vice versa. In the study of Gerhards et al.[4] a false-positive preoperative diagnosis of malignancy resulted in a 15% resection rate of benign lesions in patients with suspicious hilar strictures. Careful review of all preoperative information and radiological images of our case yielded the initial diagnosis of a CHD tumor, although postoperative pathological examination revealed only inflammation and fibrosis. The decision to undertake resection of the strictures in this case was therefore not an error of judgment. Obviously, resection of the lesion and obtaining a tissue diagnosis are still the most reliable way to rule out malignancy. Therefore, resection of a benign stricture mimicking a malignant stricture in the extrahepatic bile duct cannot be avoided completely. However, the lack of clinical constitutional symptoms such as body weight loss or abdominal pain and elevated tumor markers may implicate the possible benign entity of the disorder. Benign, single, non-traumatic inflammatory strictures of the biliary tracts were infrequently reported with the exception of primary sclerosing cholangitis[1-3]. Indeed, many benign nontraumatic inflammatory strictures of the common hepatic,bile duct have been generally considered to be a variant of primary sclerosing cholangitis although Standfield et al.[13] described 12 cases of benign strictures of unknown etiology, and differentiated them from the localized form of sclerosing cholangitis. Other inflammatory conditions of the CHD which are potential etiological factors included

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bacteria or virus infection, parasite infestation, abdominal trauma, congenital abnormality[14], chronic pancreatitis[15], inflammatory pseudotumors[16],complication of chemotherapy[17], complication of duodenal ulcer disease[18-20], and sclerosing therapy of bleeding duodenal ulcer[21]. Most benign segmental strictures of the extra-hepatic bile duct reported in the literature were located at the hilum or distal CBD. Few cases in the mid CBD have been reported.

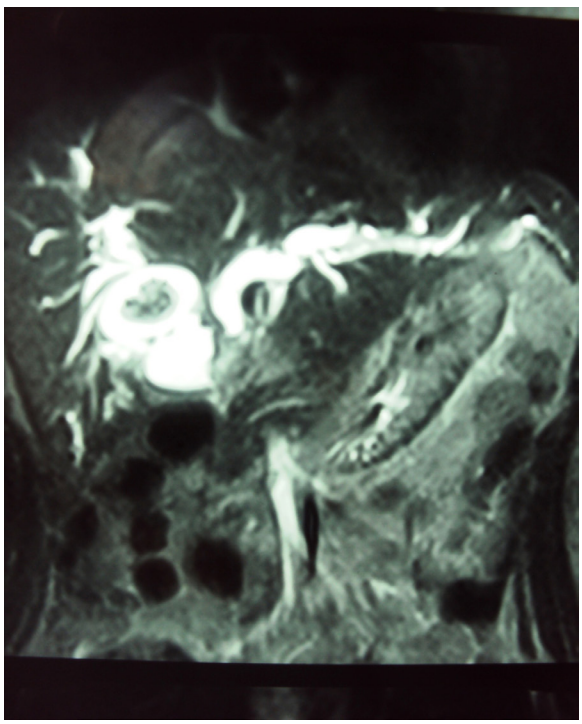

Figure A: Segmental stricture of CHDHH with dilatation of intrahepatic bile ducts demonstrated in MRCP

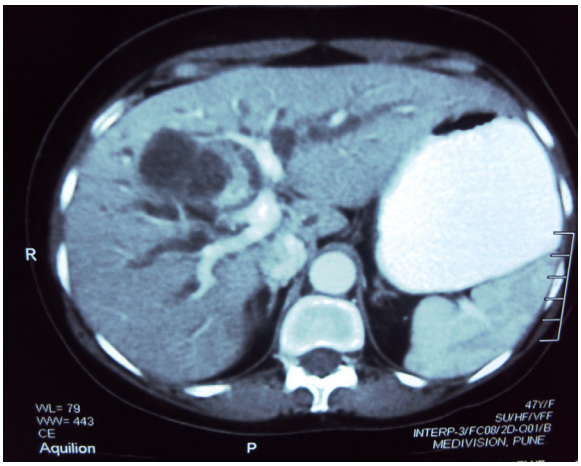

Figure B: Segmental stricture of CHD demonstrated in CT scan

The CHD stricture of this patient are less likely due to biliary duct stones because the radiological studies and operative findings did not show the existence of stones. The normal pancreatogram excluded the possibility of chronic pancreatitis as the cause of mid CBD strictures. The radiological appearance, histological examination and the extremely rare incidence in this area made the diagnosis of primary sclerosing cholangitis less likely.

In conclusion, benign non-traumatic inflammatory strictures affecting the common hepatic duct can be mistaken for malignant tumors. Their existence should be considered in the differential diagnosis of any biliary strictures. A tissue diagnosis should be obtained whenever possible as radiology alone is often insufficient to make a firm diagnosis of malignancy in biliary strictures.

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