Case study

BILIARY CYSTADENOMA: A RARE CASE STUDY

Abstract

This case reports the Obstructive jaundice and cholangitis correlate with malignant disease and typically occur with extrahepatic Biliary cystadenoma.50-year, non-alcoholic, post-menopausal female patient presented to OPD with itching all over body for 3 months. She had colic type of pain in upper abdomen in the last 7 days.Biliary cystadenomas arise from the epithelium cells lining either the gall bladder or the bile ducts and are multiloculated and multiseptated. These masses typically arise from the bile ducts of the right hepatic lobe. Enucleation is another option and is indicated where resection is impossible due to the size and location of the tumour.

Keywords: Biliary cystadenomas, tumour, epithelium cells, hepatobiliary stem cell

INTRODUCTION:

Biliary cystadenoma accounts for less than 5% of nonparasitic cysts of the liver [1] Usually it develops from either an aberrant bile duct or directly from a primitive hepatobiliary stem cell [1,7,8]. Majority are intrahepatic (85%) [6, 7, 9–11], fewer are extra hepatic [5– 7, 12] and occasionally are seen to arise from the gall bladder. Preoperatively, it is difficult to distinguish biliary cystadenoma from biliary cystadenocarcinoma and hence surgical excision should be considered.

Most patients are middle-aged women with an average age of 45 at time of diagnosis. The most common symptoms are those that are due to mass effect, including epigastric and right upper quadrant pain, jaundice, and cholangitis [1]

Obstructive jaundice and cholangitis are rare and do not correlate with malignant disease and typically occur with extrahepatic Biliary cystadenoma.

Casepresentation:

50-year, non-alcoholic, post-menopausalfemale patient presented to OPD with itching all over bodyfor 3 months. She had colic type of pain in upper abdomen in the last 7 days. Nohistory ofMalena, weight loss or fever.

Serum amylase,lipase and routine blood reports were normal.Serum bilirubin total: 10.2, Direct bilirubin: 8.3, Indirect bilirubin: 1.9Alkaline phosphatase: 491.

USG suggestive of dilated intrahepatic ducts with dilated common bile duct (CBD) with hypoechoic growth within, prompting further imaging. So, contract CT was done, suggestive of multiseptated cystic lesion in CBD, common hepatic ducts and left hepatic duct. Dilated CBD measures 12mm.Mild thickening of CBD with small focal heterogenous enhancement at papilla? infective? Neoplastic aetiology needs further co relation.so MRCP done. MRCP findings shown in figure 1.

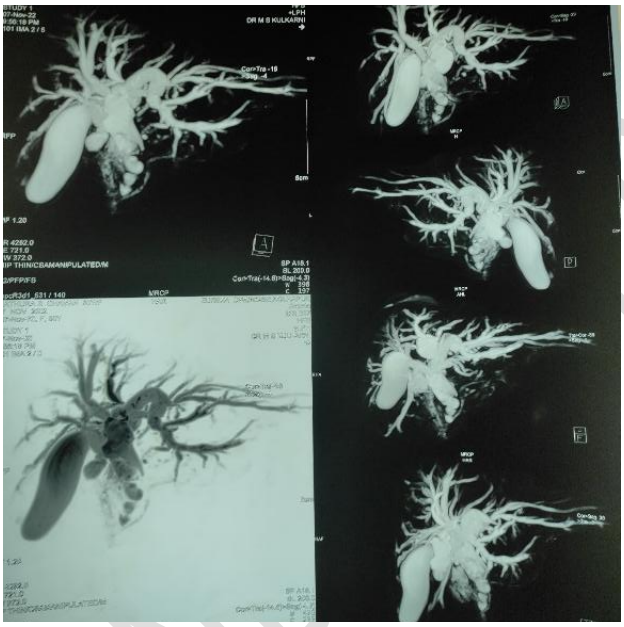

Figure 1: name of image: **MRCP** showing.

MRCP

- Fusiform enlargement of entire CBD, more in supra-pancreatic region.
- Dilated CBD, Right and left hepatic duct.
- Multi septate, cystic morphology, filling and distending CBD as well as common hepatic duct? Possibility of cystic neoplastic lesion.

So, after consultation with GI surgeon, first ERCP with stenting was planned to relieve obstructive jaundice and later definitive surgery planned.
ERCP with stenting done with 7 French plastic stent.

Tumour markers (CEA, AFP, and CA 19-9) were normal, and the patient was planned for definitive surgery. Patient consent was taken for planned surgery CBD exploration and removal of tumour sos cholecystectomy.

Intraoperative findings:

Kocher incision was taken. Distended gall bladder noted with enlarged pericholedochal lymphnodes. Lymph nodes were sent for frozen section, which s/o reactive lymphadenitis.
Intra operative cholangiogram done to locate cystic growth (as shown in fig.2)

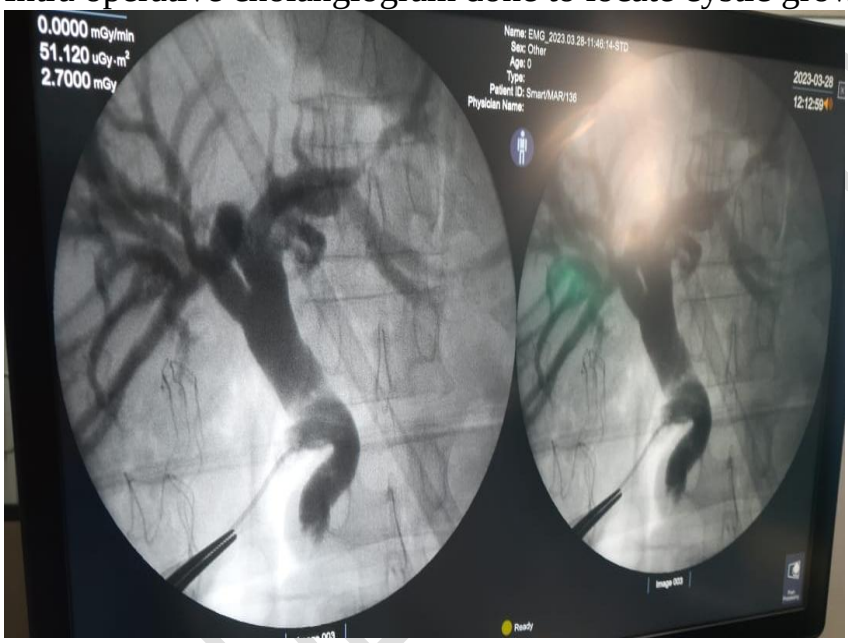

Figure 2: Intraoperative cholangiogram delineating the cystic growth extending from intra hepatic ducts to CBD with filling defect.

CBD exploration done; cystic lesion noted in CBD extending from intrahepatic ducts till second part of CBD noted. Stent in CBD noted with normal distal part of CBD.
CBD EXPLORATION AND REMOVAL OF LESION: After CBD exploration, 7*2cm cystic lesion extending from CBD to confluence of hepatic duct removed (As shown in figure 3) and send for histopathological examination. CBD closure done with polyglactin 3.0. Cholecystectomy done on

same setting. Excised specimen shown in figure 4. Histopathological slides shown in figure 5 and 6.

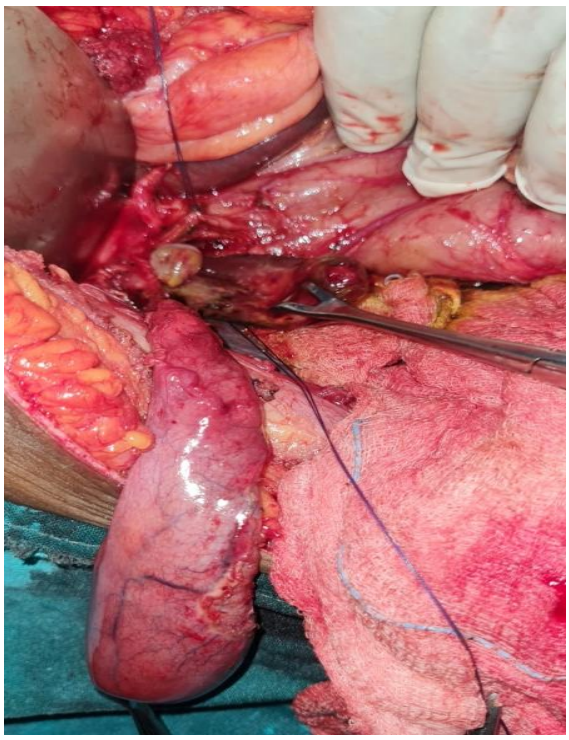

Figure 3: CBD exploration with removal of cystic lesion.

Figure 4: Excised specimen.

Histopathological slides:

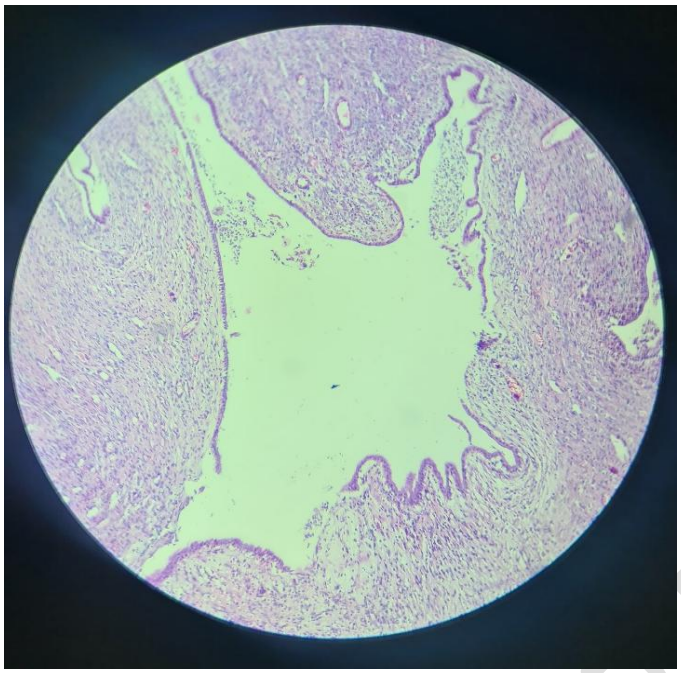

Figure.5(10x view of biliary cystadenoma)

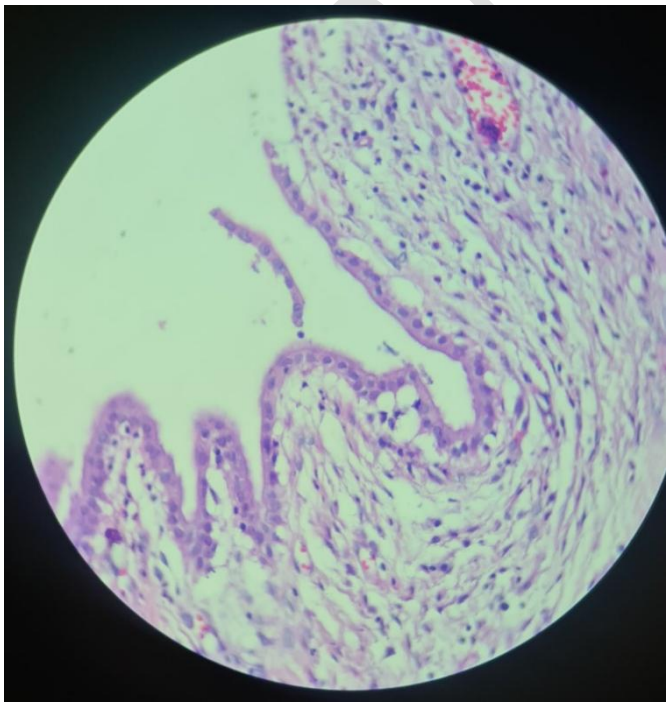

Figure.6 (40x view of biliary cystadenoma)

Post operative care: Patient Symptomatically and clinically improved.Drain was removed on pod 4. Repeat LFT was done, significant improvement noted in serum bilirubin levels as compared to preoperative levels. Patient was discharged and advised to follow up after 1 month for stent removal. After 1 month stent was removed.

Discussion:

Biliary cystadenomas are rare hepatic lesions that often present with nonspecific signs and symptoms [3]. Though variable, the most common presentation is asymptomatic on incidental findings through imaging [4] Acute presentation is often pain due to intracystic haemorrhage or rupture of the cyst and fever secondary to infection of the cyst. Jaundice is either due to an extrinsic compression of the bile duct, biliary obstruction by an intraluminal tumoral mass Due to both the potential for the malignant transformation of a biliary cystadenoma to cystadenocarcinoma and the inability to differentiate a benign from malignant mass preoperatively, complete surgical excision is the recommended course of treatment [5]. Biliary cystadenomas arise from the epithelium cells lining either the gall bladder or the bile ducts and are multiloculated and multiseptated. These masses typically arise from the bile ducts of the right hepatic lobe [6]. Although benign, cystadenomas can reoccur after incomplete surgical excision and may transform into malignant biliary cystadenocarcinoma.

On MRI, the masses are typically of low signal on T1 and high signal on T2 weighted images. Both CT attenuation and MR T1 and T2 weighted images signal intensity will vary depending on the protein content and presence of blood in the fluid component of the cystadenoma. There is no diagnostic imaging modality that reliably allows us to differentiate a benign biliary cystadenoma from a malignant biliary cystadenocarcinoma, correlation with the patient’s age and clinical presentation must be considered when interpreting images.

Conclusion:

The diagnosis of biliary cystadenoma should be considered in any multilocular cystic lesion of the liver, particularly in a middle-aged woman. The recommended treatment of choice for any suspected biliary cystadenoma is

resection as it is extremely difficult to differentiate preoperatively, a benign from a malignant neoplasm. Enucleation is another option and is indicated where resection is impossible due to the size and location of the tumour.

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