ORIGINAL RESEARCH PAPER

General Surgery

A CASE REPORT OF CHOLEDOCHAL CYST IN ADOLESCENT FEMALE.

KEY WORDS: Biliary tract, Choledochal cyst

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ABSTRACT

Choledochal cyst is an uncommon congenital biliary tract abnormality of unknown etiology. Its classical symptoms are jaundice, abdominal pain, and right upper quadrant mass. However, the disease may present with a vague and non-specific chronic abdominal discomfort. Delay in diagnosis and management may increase the risk of complications particularly the malignancy, which can directly affect the prognosis and outcome. Complete excision of the extra-hepatic duct, cholecystectomy, and Roux-en-Y Hepaticojejeunostomy through the open surgical intervention or laparoscopic procedure is the mainstay of treatment.

INTRODUCTION

Choledochal cysts are rare congenital bile duct anomalies, presenting as cystic dilatations of the biliary tree can involve the extrahepatic biliary radicles, the intrahepatic biliary radicles, or both. They may occur as a single cyst or in multiples within the biliary tree. They are typically a surgical problem of infancy and childhood, but less than a quarter of the patients the diagnosis is delayed until adulthood. The presentation is often vague and nonspecific. The so-called classic triad of intermittent jaundice, abdominal mass, and pain is found in a minority of cases according to most case series [1]. The most frequently seen presentation is abdominal pain which is a nonspecific symptom and usually associated with a relatively late diagnosis followed by jaundice as it usually associated with early diagnosis. In a case with biliary symptoms, abdominal ultrasound scan is the initial imaging modality of choice. Precise and accurate delineation of the biliary system mandates cholangiography with the advantage of non-invasive MRCP over endoscopic retrograde cholangiopancreatography [2]. Choledochal cysts present differently in adults and children; whereas children present with the classic triad, adults present with common biliary or infective complication. This case report highlights the difficulties involved in making a correct diagnosis and the operative treatment for a choledochal cyst.

CASE REPORT

A 17 year old female patient was presented to our surgical outpatient department for right upper abdominal pain 5 days back. Pain was localized to right subcostal region, dull aching, without any radiation or known aggravating or relieving factor. There is no history of fever, vomitting, jaundice or lump in the abdomen. History of similar episode of pain was present 1 month back for which patient took treatment at local hospital and USG was done. Patient's birth history and family history were non-significant. patient was referred to our hospital for further management.

Her general and per abdominal examination was unremarkable.

Her complete blood count revealed haemoglobin of 10.8 gm/dL , Total leucocyte count were 9790/mm3 and normal platelet count. Serum total bilirubin level was 0.3 mg/dl with 0.13mg/dl direct bilirubin, Serum SGPT was 14 IU/L, serum alkaline phosphatase was 22 IU/L. Renal function test, serum amylase, lipase and coagulation profile were unaltered.

Ultrasonography findings revealed fusiform dilatation of CBD (Common bile duct) with wall thickness of CBD 2 mm and saccular dilatation of CHD.

MRCP finding revealed approx. 65*65*60 mm sized large fusiform dilatation of CBD causing mild prominence of central intrahepatic biliary radicles and approx. 22*20*18 mm sized intrahepatic saccular dilatation of left hepatic duct suggestive of choledochal cyst (Todani type IVa).

We performed exploratory laparotomy by right subcostal incision. 7*6*5 cm sized fusiform dilataion of common bile duct found. Extra-hepatic cystectomy with cholecystectomy and Roux-en-y Hepatico-jejunostomy done.

Postoperative course was uneventful. patient discharged on postoperative day 4. Histopathological report was suggestive of chronic inflammatory infiltrates without any evidence of malignancy.

DISCUSSION

Choledochal cyst are rare congenital disease of the biliary tree. It presenting with vague and nonspecific features usually associated with a relatively late diagnosis. These presentations include upper abdominal pain and jaundice which are common in many other illnesses of the upper gastrointestinal tract. The classical triad of jaundice, right upper quadrant mass, and abdominal pain is present in only a minority of patients (0-17%) [3]. Similar to this case, a 17 years old female child presented with non-specific abdominal pain and no other gastrointestinal symptoms. absence of Other presenting features of choledochal cysts (cholangitis, pancreatitis, and biliary peritonitis from cyst rupture) contributed to the delayed presentation.

Abdominal ultrasonography remains the initial imaging modality of choice in gastrointestinal tract disease presenting with biliary symptoms as it is sensitive in the detection of cystic structures but not specific in delineate the structural origin. Computed tomography (CT) is infrequently required in the situation where the distal common bile duct is not visualized due to bowel gas. Ultrasound and CT are excellent modalities for detecting cystic right upper abdominal lesions and for assessing their size and extent, but the biliary origin of the cyst may not be always reliably commented [4].

Magnetic resonance cholangiopancreatography(MRCP) is emerging as a highly sensitive, safe, and non-invasive diagnostic preoperative technique for the detection of Choledocal cysts although has limited capacity to detect associated ductal anomalies or small choledochocele [5].

The treatment of a choledochal cyst has changed. In the past, a cysto-jejunostomy was the standard procedure. Currently,

excision of the cyst and reconstruction by Roux-en-y hepaticojejunostomy is the standard therapy [6]. If the liver parenchyma is non cirrhotic and there is no evidence of intrahepatic duct malignancy then hepatic parenchyma should be preserved. Even in the setting of stone or stricture transhepatic biliary stenting can also be used for those with type IVa cysts that extends into intrahepatic duct.

CONCLUSION

Diagnostic delay (antenatal and postnatal) and non-specific symptoms will mask the real feature of the disease, especially in low-resource settings. Technical facilities and professional care of the patient may preclude complications. Early intervention can prevent hepatic resection and decreases postoperative morbidity and improve patient outcome

Fig.1

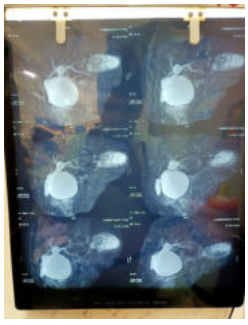


Fig.2

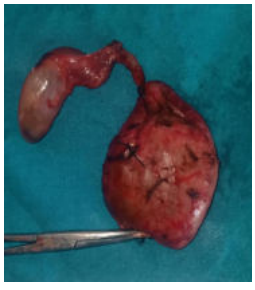
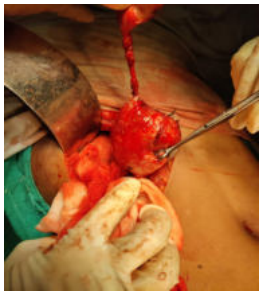


Fig.3



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