

CASE REPORT

ULTRASOUND DIAGNOSIS OF CHOLEDOCHAL CYST

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INTRODUCTION

Choledochal cyst is an aneurysmal dilatation of the common bile duct, supraduodenal part being the commonest site. Female predominate with female to male ratio of 4:1. It is more common in oriental races, particularly in Japan. The anomaly is rarely seen in Europe ¹.

We submit two cases of choledochal cyst which were diagnosed by ultrasound.

CASE 1

A 20 years married female patient from Swabi was referred for ultrasound on 25-12-1992. She presented with pain right hypochondrium, vomiting and mild jaundice of a weeks' duration. She suffered from similar bouts for the last 5 years, recurring every 3-6 months. No mass was palpable, TLC was 10,000/cmm with Polys 71 %; blood sugar and urea were normal. LFT's showed bilirubin 5.1 mg%, alkaline phosphatase 89 IU/L, ALT 80 IU/L and total proteins 7 gm/dl.

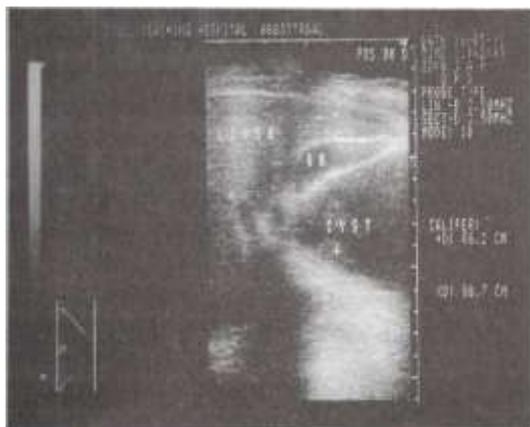


Fig. 1: Sonogram showing choledochal cyst communicating with the dilated common bile duct.

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Sonography with 3.5 MHz linear probe revealed an anechoic fluid filled structure showing communication with slightly dilated common bile duct (Figure 1). It measured 5.0 cm. Liver, Gall Bladder, Pancreas & Spleen were normal morphologically. Operative finding confirmed the Ultrasound diagnosis of choledochal cyst.

CASE 2

A 11-year girl from Gadoon was referred for ultrasonic study on 2-10-95. She presented with pain right hypochondrium and jaundice. A mass was palpable in the right hypochondrium. LFTs showed bilirubin 8 mg/L, Alkaline Phosphatase 45 IU/L and total protein 6.5 gram/dl. Ultrasound examination showed well defined avoid cystic mass 6x4 cm, separate from the Gallbladder below the porta hepatis, communication with common bile duct w-as seen (Figure-2). Rest of the organs were normal.



Fig 2: Choledochal cyst seen separate from gall bladder and communicating with dilated common bile duct.

DISCUSSION

Choledochal cyst is a rare but important surgical condition. A classical triad of abdominal pain,

jaundice and mass varies between 13-63% of patients².

The incidence of cyst is highest in children but may occur in adults as in one of our cases. The anomaly is more common in females than males in the ratio of 4:1³.

The unreliability of clinical diagnosis emphasizes the role of ultrasound in early diagnosis of the condition. This results in significant reduction in the incidence of complications and mortality⁴

The presence of a right hypochondrial mass in ultrasound examination of any jaundiced child should raise the possibility of a choledochal cyst⁵.

Ultrasound demonstration of a dilated bile duct entering the cystic lesion confirms the diagnosis. Deep extension of the cyst into the porta hepatis with apparent separation of the left and right hepatic lobe is also typical⁶.

Ultrasound differential diagnosis of choledochal cyst includes⁷.

1. Hepatic cyst.
2. Pancreatic pseudocyst.
3. Enteric duplication cyst.
4. Hepatic artery aneurysm.
5. Spontaneous perforation of the biliary tree.

HIDA scanning may confirm the diagnosis which usually shows tracer accumulation within the cyst⁸.

CT scanning may be needed in problem cases which reveals criteria of a cyst having thickened wall and which enhances on intravenous cholangiography⁹.

Complications of the choledochal cyst include portal hypertension, biliary cirrhosis, recurrent cholangitis, recurrent pancreatitis, carcinoma of bile duct and spontaneous rupture of the cyst. Treatment obviously is surgical excision which should be undertaken as early as possible.

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