INTRODUCTION
Choledochal cyst (CDC) is a congenital anomaly presenting as cystic dilatation of biliary tree. It is rare and commonly manifests in childhood. According to Todani classification\(^1\), choledochal cysts are classified into 5 types. Isolated cystic dilatation of cystic duct is rare and is not included in traditional classifications. This as type VI choledochal cyst has been suggested by Serena Serrandel (2). Only few cases of type VI choledochal cyst have been reported in literature\(^{[4,5,6,7]}\).

We present a case of type VI choledochal cyst in a 31 years old male.

CASE REPORT
A 31 years old male presented with pain in right hypochondium for 5 months. It was dull aching type of pain relieved by medication temporarily. He also developed burning sensation in epigastrium for 1 month. Patient had no history of jaundice, biliary colic or any other medical illness.

His all routine blood investigations along with liver function tests were within normal limits. Patient was seronegative for viral markers.

Ultrasonography (USG) of abdomen was suggestive of early parenchymal liver disease with grade 2 fatty changes with gall bladder (GB) calculi with no intrahepatic biliary radicals (IHBR) or common bile duct(CBD) dilatation. Repeat target scan for GB was suggestive of distended GB with normal CBD & IHBR with multiple calculi in dialted cystic duct.

Magnetic resonance cholangiopancreatography (MRCP) showed dilated cystic duct with multiple calculi within with abrupt narrowing of cystic duct at its insertion with common bile duct (CBD) (Fig.1). Thus raised doubt of type VI choledochal cyst i.e. isolated cystic dilatation of cystic duct.

As MRCP was suggestive of abrupt narrowing of dilated cystic duct, cholecystectomy with excision of choledochal cyst was planned. Intraoperatively cystic dilatation of cystic duct was found with normal CBD (Fig.2). Simple cholecystectomy with excision of cystic duct was performed. As there was healthy stump of cystic duct and CBD was normal, bilo-enteric bypass was not performed. Specimen (Fig. 3a & 3b) was sent for histopathology examination.

Postoperative course of patient in hospital was uneventful. Histopathology examination report of specimen was suggestive of chronic calculus cholelithiasis with dialted cystic duct with inflammation suggestive of Type VI choledochal cyst.

Patient on follow up of 2 years was found to be symptoms and disease free.

Figures

Fig. 1: MRCP showing dilated cystic duct with multiple calculi within with abrupt narrowing of cystic duct at its insertion with CBD
DISCUSSION

Choledochal cysts(CDC) have been classified into 5 main types as described by Todani et al(1) - a modification of earlier Alonso-Lej classification (3). Serrandel et al (2) proposed for inclusion of type VI CDC in this classification. Type VI CDC is isolated cystic dilatation of cystic duct. It is extremely rare amongst all CDCs. Until now very few cases have been reported in literature.

Shah et al (4) presented a case of type VI CDC in a 10 years old female patient. She was diagnosed preoperatively on MRCP and was managed with cholecystectomy with total excision of cystic lesion along with common hepatic duct and CBD. Reconstruction was achieved by Roux-en-Y hepaticojejunostomy. In present case, simple cholecystectomy with excision of cystic duct was performed. As there was healthy stump of cystic duct and CBD was normal, bilio-enteric bypass was not performed.

Sharma et al (5) reported a case of type VI CDC in a 20 years old female who was diagnosed preoperatively on MRCP and managed with simple open cholecystectomy with cyst excision. In present case, patient was 31 years old male and was managed similarly.

Ray et al (6) also reported a case of a 23 years old male with type VI CDC suspected preoperatively on imaging and confirmed intraoperatively by laparoscopy. It was excised completely with gall bladder by laparoscopic cholecystectomy. In present case, open procedure was chosen over laparoscopic because MRCP was showing abrupt narrowing of cystic duct and we had suspected need of bilio-enteric anastomosis. Nambiar et al (7) reported a case of Type VI CDC in a male patient of jaundice. On computed tomography, it was diagnosed as dilatation of CBD. Patient underwent laparoscopic converted to open cholecystectomy with excision of CDC of cystic duct. Intraoperatively, it was found to be isolated dilatation of cystic duct with normal CBD.

In present case, a 31 years old male presented with symptoms of dull aching type of pain and burning sensation in epigastrium. Patient had no history of jaundice or recurrent biliary colics. On MRCP, type VI CDC was diagnosed. As cystic dilatation of cystic duct was getting abruptly cut off near CBD, open cholecystectomy was planned. Findings were confirmed intra-operatively. Simple cholecystectomy with cystic duct excision was done as stump was healthy and CBD was normal.
CONCLUSION
Dilated cystic duct on ultrasonography can raise a suspicion of type VI choledochal cyst. MRCP plays a key role for diagnosis of such type of choledochal cyst. If it purely isolated cystic dilatation of cystic duct, simple cholecystectomy with complete excision of cystic duct is sufficient. In such cases, laparoscopic approach can be preferred if CBD is absolutely normal.

REFERENCES