Long, parallel cystic duct in a patient presenting with obstructive jaundice

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Citation

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Abstract

Cystic duct anomalies are commonly seen on ERCP and MRCP and can pose difficulty during laparoscopic surgery. We report a rare case of a 30-year-old female patient who presented with right upper quadrant pain, tenderness, jaundice, elevated liver function tests, and ultrasound evidence of gall bladder calculi with dilated CBD. Endoscopicretrograde cholangiopancreatography (ERCP) revealed a long, cystic duct running parallel to CBD. Laparoscopic cholecystectomy confirmed long cystic duct.

CASE

A 30 year old female patient presented to the emergency room with one day history of right upper abdominal pain radiating to right scapular region. Patient denied any history of fever or vomiting. In the emergency room the patient's vital sign were BP: 102/66 Pulse: 100/min, RR 20/min .Patient has yellowish discoloration of sclera. Abdominal examination revealed soft, lax abdomen, without any abdominal scar, with mild right hypochondrial tenderness. On evaluation , patient hemoglobin was13.3 gm/dl , WBC of 5.37 X10.e9 /L (normal 4-11) .Her liver function tests revealed total serum bilirubin of 68.6 umol/L (normal, 0-17) ; AST 111 U/L(normal, 15- 37); ALT 299 (normal 30-65) U/L; gamaglutamyl transferase 351 U/L (normal, 7-32) and ALP was 351 (normal, 50-136); Amylase serum 26 U/L (normal, 25-115); Lipase, plasma 93 U/L (normal,14-286) . Ultrasound (Figure: 1) showed tiny gallstones with dilated CBD and central IHBR with no definite intraluminal calculi in the visualized portion of CBD. No gallbladder wall thickening or pericholecystic fluid was seen. ERCP revealed small 5 mm stone impacted at papilla ,CBD was dilated, after injecting contrast into the CBD, contrast was seen coming down through cystic duct running parallel to CBD and accumulating in gallbladder (Figure3 and 4). Stone was removed after sphincterotomy. Patient underwent laparoscopic cholecystectomy and surgical findings were consistent with the very long cystic duct.

Figure 1

Figure 1

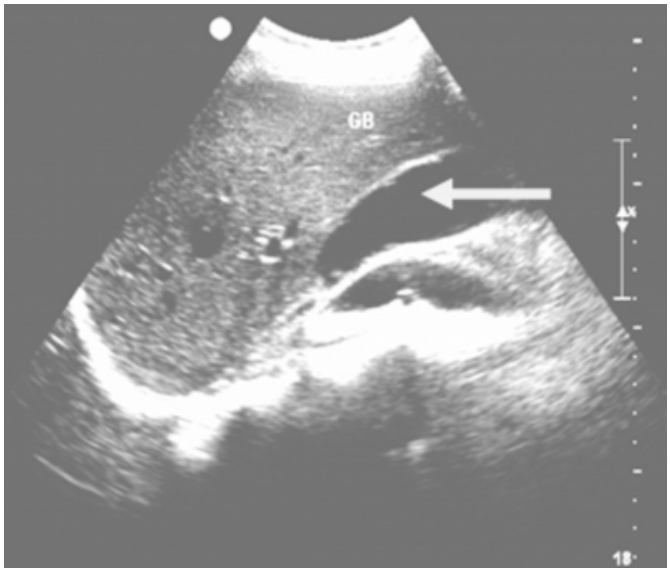


Figure 2

Figure 2

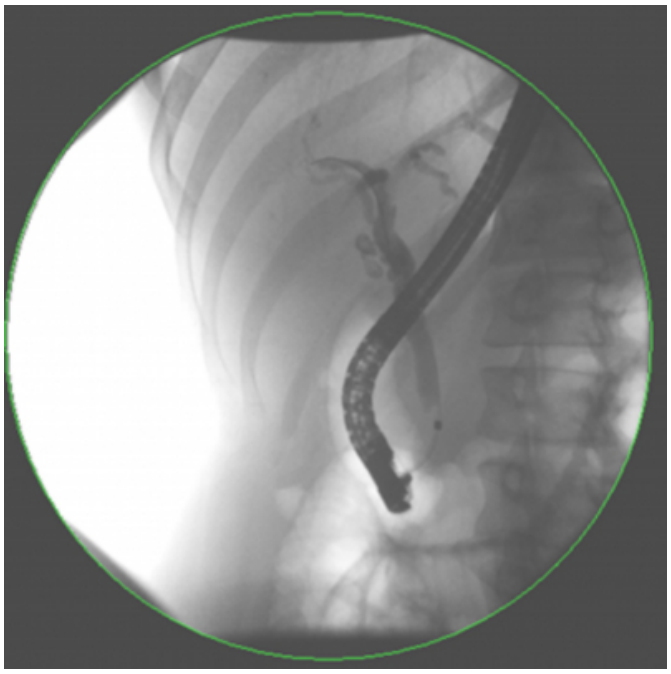


Figure 3

Figure 3

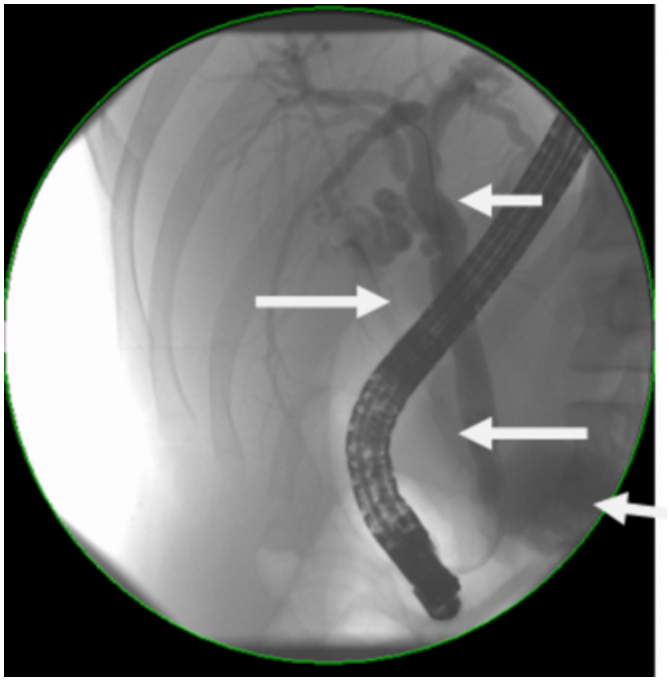
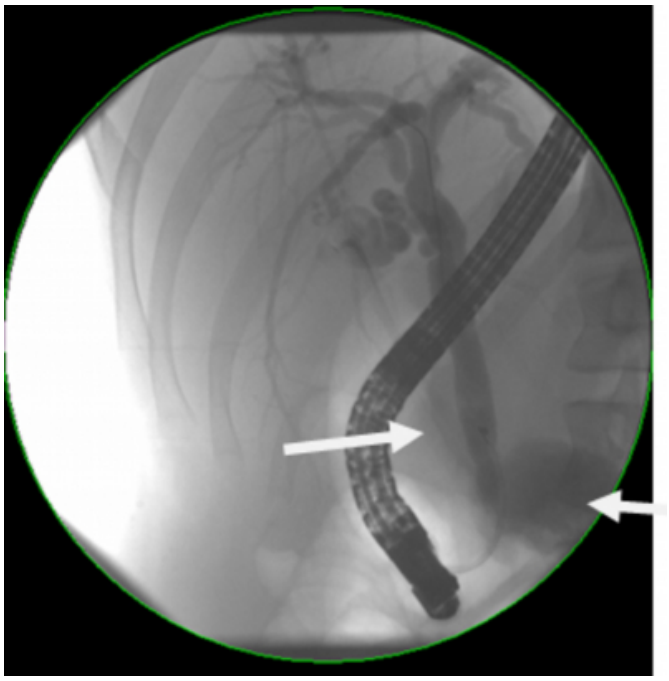


Figure 4

Figure 4



DISCUSSION

Various types of cystic duct anomalies have been reported. Variations of cystic duct anatomy include low junction between the cystic duct and common hepatic duct, cystic duct adherent to the common hepatic duct, high junction between the cystic and the common hepatic duct, the cystic duct drains into right hepatic duct, absence of the cystic duct {1}. The cystic duct crosses posterior to the common hepatic duct and joins it interiorly, the cystic duct courses anterior to the common hepatic duct and joins it posteriorly. Long cystic duct that joins the common hepatic duct behind the duodenum {2}. Also double cystic duct with double gall bladder has been reported in one patient {3}.Small ducts may drain directly from the liver into the body of the gallbladder {4}. If present, and not recognized at the time of a cholecystectomy, a bile leak with the accumulation of bile (biloma) may occur in the abdomen. An accessory right hepatic duct occurs in about 5% of cases. Although a long cystic duct with tortuous course is a usual finding on ERCP/ MRCP and laparoscopic cholecystectomy, but very long cystic duct running parallel to CBD is very rare. On Medline search, two patients with a very long cystic duct syndrome running parallel to common hepatic duct has been described, From Greece a case of 47-year-old male patient was diagnosed on magnetic resonance cholangiopancreatography (MRCP).In both of these patients there was low lying cystic duct insertion {2}. In our patient the cystic duct origin was

at normal position, but was running parallel to the CBD with floating gall bladder.

References

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