Biliary secondary to choledocholithiasis

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Biliary secondary to choledocholithiasis is rare. We report a patient in whom a large common bile duct stone was responsible for leak from the intraduodenal segment of the bile duct. Choledochotomy with extraction of stone followed by T-tube drainage of the bile duct and evacuation of the biliary resulted in complete recovery. [Indian J Gastroenterol 1998; 17: 31-32]

Key words: Endoscopic retrograde cholangiography, bile leak, biliary drainage

Biliary is an encapsulated intraperitoneal collection of bile, occurring secondary to blunt trauma, hepatobiliary surgery or endoscopic shock-wave lithotripsy.1,2 The treatment varies from percutaneous drainage with surveillance to urgent surgical intervention. We report a patient with spontaneous biliary secondary to choledocholithiasis.

A 55-year-old non-alcoholic man presented with acute onset of progressive epigastric and umbilical pain radiating to the back, of 24 hours’ duration; he also noticed jaundice and progressive abdominal distension. On examination he had icterus, tachycardia, low-grade fever, epigastric fullness, preserved bowel sounds and tenderness in the right upper quadrant of abdomen.

Investigations: hemoglobin 11.8 g/dL, WBC 16,400/μL (neutrophils 84%, lymphocytes 16%); serum amylase 39 IU/L (normal 34-140), serum lipase 166 IU/L (normal <190), serum bilirubin 4.5 mg/dL (direct 3.1), SGPT 70 IU/L, SGOT 60 IU/L. Plain X-ray abdomen showed a few dilated small bowel loops without air-fluid level. Ultrasonography revealed a 20 cm x 15 cm anechoic lesion with few internal echoes lying anterior to the pancreas and medial to the liver and dilated common bile duct (CBD) and intrahepatic biliary radicals. Post-contrast CT scan revealed a 20 cm x 10 cm x 15 cm hypodense nonenhancing mass situated anterior to the pancreas with thin regular enhancement; the mass displaced the stomach to the left and inferiorly. The CBD and intrahepatic biliary radicals were dilated; there were no stones in the gall bladder. The pancreas was normal.

Percutaneous aspiration under ultrasound guidance revealed bile. A double-pigtail Teflon® stent with side holes was placed in the center of the collection and 1.5 liters of bile was drained. Bile culture revealed Klebsiella and Pseudomonas aeruginosa.

Emergency endoscopic retrograde cholangiography (ERC) revealed a stone impacted at the lower end of the CBD. A 10-mm papillotomy was performed using standard sphincterotome (Cotton®; Wilson-Cook). Contrast study revealed dilated CBD and dilated intrahepatic biliary radicals, normal cystic duct and gall bladder, and a 13-mm stone within the CBD. ERC also revealed a contrast leak from the intraduodenal segment of the CBD (Fig.). A single-pigtail T F nasobiliary tube was placed in the CBD.

Since it was necessary to evacuate the biliary and extract the calculus the patient was operated on. Choledochotomy with T-tube drainage of the bile duct and evacuation of the biliary was performed. The patient had an uneventful recovery. T-tube cholangiogram showed free flow of contrast in the duodenum with no leak. The T-tube was then clamped and removed after 6 weeks.

Fig: Endoscopic retrograde cholangiogram showing large stone, dilated biliary system, bile leak, and drainage into catheter

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The presence of free (bile ascites) or encapsulated (bilioma) bile in the peritoneal cavity is a rare occurrence. Most described cases of bilioma followed blunt liver trauma or hepatobiliary surgery. In our patient it occurred in association with a large CBD stone; dilated biliary radicals and large stone suggest that the stone was silent for long.

The treatment options include drainage and surgical correction. Though percutaneous drainage resulted in considerable relief of pain and abdominal distension, we explored the patient in view of the large collection, risk of bilio-cutaneous fistula and large stone in the bile duct.

References


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Multiple diverticula of gall bladder

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Diverticula of the gall bladder are of no clinical significance unless associated with stones. Isolated location on Hartmann’s pouch, body or neck have been explained on disordered embryogenesis but diffuse location all over the gall bladder is difficult to explain. We report a patient in whom multiple gall bladder diverticula were associated with a stone in the common bile duct. [Indian J Gastroenterol 1998; 17: 32-33]

Key words: Gall bladder anomaly

Diverticula of the gall bladder are rare. They are clinically insignificant unless they become the site of disease. A 32-year-old woman presented with complaints of pain in the right hypochondrium and jaundice of two weeks’ duration. Examination revealed jaundice with no abnormal finding in the abdomen. Serum bilirubin of 14 mg/dL (unconjugated 4), alkaline phosphatase of 48 KA units and absence of urobilinogen in urine suggested obstructive jaundice. Ultrasonography revealed dilated common bile duct (CBD) with a stone at its lower end. The gall bladder showed no stone.

Fig: Cholecystogram showing multiple diverticula of gall bladder, with stone in dilated common bile duct

At surgery, the gall bladder showed outpouching and thinning at several places. Cholecystodochogram (15 mL contrast into the gall bladder and 5 mL into the CBD) revealed multiple diverticula in the gall bladder, dilated CBD and a filling defect suggestive of stone at the lower end of the CBD (Fig). Cholecystectomy with choledocholithotomy was done; the CBD was repaired around a T-tube. Postoperative recovery was uneventful.

The most common site for gall bladder diverticula is the Hartmann’s pouch. They vary in size from 0.6-1.5 cm. Blalock found diverticula in 0.2% of 727 surgically removed gall bladders, while Weisel and Walters found them in 25 of 29,701 gall bladders removed surgically.

The congenital variety should be distinguished from pseudodiverticula developing as a result of partial perforation. The pseudodiverticulum usually contains a large gallstone. Embryologically, diverticula of the body and neck arise from persistent cystohepatic ducts which run in embryonic life between the gall bladder and liver. The fundal variety arises from incomplete vacuolisation of the solid gall bladder in embryonic life; an incomplete septum pinches off a small cavity at the tip of the gall bladder.

In the present case, the diverticula were present all over the fundus, body and neck; this could not be explained by either of the factors described above.

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