Abstract:
Biliary stones are usually found in the gallbladder, but about 10-20 may spontaneously migrate into the common bile duct where they either remain trapped or migrate subsequently via the papilla of Vater into the duodenal lumen. In some cases, biliary stones may form de novo in the common bile duct because of local precipitating factors. We here present a spectacular case of huge gallstones impacted in the common bile duct (empierrement of the common bile duct) that led to the development of acute cholangitis with palpable gall bladder (exception to Courvoisier's law). The association of fever and rapid onset of jaundice always makes physicians think of cholangitis, when associated with palpable gall bladder (exception to Courvoisier's law). The association of fever and rapid onset of jaundice always makes physicians think of cholangitis, when associated with palpable gall bladder (exception to Courvoisier's law). The association of fever and rapid onset of jaundice always makes physicians think of cholangitis, when associated with palpable gall bladder (exception to Courvoisier's law). The association of fever and rapid onset of jaundice always makes physicians think of cholangitis, when associated with palpable gall bladder (exception to Courvoisier's law). The association of fever and rapid onset of jaundice always makes physicians think of cholangitis, when associated with palpable gall bladder (exception to Courvoisier's law).

Keyword: courvoisier's law, gall bladder, CBD calculus, cholecystectomy, choledochotomy

INTRODUCTION
Gallstone disease is one of the most prevalent of all digestive diseases in India. Gallstones do not induce symptoms in the majority of cases, but only 2% to 4% of patients become symptomatic each year. [1] COURVOISIER'S LAW [7] In a case of obstructive jaundice if gall bladder is palpable it is probably due to neoplastic obstruction in distal part of bile duct, either cancer at ampulla of vater or cancer at head of pancreas. There are however few exceptions of the law, where gall bladder may be enlarged not due to cancer of the head of the pancreas. These are 1.) Double impaction of stones (one in the cystic duct other in the CBD) 2.) Oriental cholangiohepatitis 3.) Pancreatic calculus obstructing the ampulla of vater CASE PRESENTATION A32-year-old man presented with history of fever with chills for 20 days and features of obstructive jaundice for 10 days, h/o vomiting for 3 days. Physical examination
showed A soft globular mass better seen than felt in the RHC at the lateral margin of right rectus muscle, 6x7cm, tender, not warm, all margins well defined except the upper margin which extends below the RCM, moves well with respiration, mobile horizontally, Head raising- swelling becomes less prominent & a temperature of 39.0°C that partially decreased after i.v, antibiotics & paracetamol administration. His blood pressure was 110/70 mm Hg, and his pulse rate was 82/min. A complete blood count showed a leukocyte count of 9,100 cells/mm³. His liver function tests revealed On admission Total bilirubin – 5mgms% ( D-3.5,I-1.5 ), After 3 days : Total bilirubin – 2mgms% ( D-1.5,I-0.5 ).SGOT ; 70 IU , SGPT ; 80 IU, ALP ; 240 IU. Initial diagnosis of cholangitis due to obstruction of distal CBD probably due to periampullary carcinoma was thought. After 5 days of antibiotics, and IV fluids, patient's condition improved. Investigations revealed, USG Abdomen: Dilated CBD, with CBD calculi (2.6cm).CT Abdomen (Oral & IV contrast): GB calculi, with terminal CBD calculi. Endoscopy; Prominent ampulla, papilla could not be visualized (ERCP failed).owing to the CBD stone diameter (2.6cm) and failed ERCP, patient was scheduled for elective open cholecystectomy and choledochotomy.Intraoperative findings: Partly distended GB with adhesions with CAT-ERPILLAR HUMP of the cystic duct. Dilated CBD- about 2.5cm. Multiple CBD stones filling the whole of CBD extending from the terminal part up to the R & L hepatic duct confluence was noted. Node in the calot’s triangle found, which was biopsied & sent. Bile aspirated and sent for culture. No evidence of any growth in/ around ampulla. Cholecystectomy & choledochotomy done. Multiple CBD stones 5 in number of size 1.5cm-2.6cm with GB stones 2 in number. Choledochotomy closed primarily with a T-Tube kept in situ. Post operative period uneventful, T-tube cholangiogram done after 2 weeks with free flow of dye in to the duodenum. HPE Reports were Stones – Cholesterol stones, GB – Chr. Cholecystitis, Lymph node

fig 1 intraoperative choledochotomy with bile aspirate fig 2 ; multiple cbd stones

fig 3; gall bladder specimen with cystic node of lund
REVIEW OF LITERATURE

Gallstone disease is one of the most prevalent of all digestive diseases in the US and Europe. Gallstones do not induce symptoms in the majority of cases, but only 2% to 4% of patients become symptomatic each year. While the vast majority of patients with gallstone disease should be managed by observation alone, selective cholecystectomy is indicated in defined subgroups of subjects, with an increased risk for the development of gallstone-related symptoms and complications in order to alleviate symptoms of pain, jaundice and to prevent acute pancreatitis, cholangitis and cholecystitis.

Common bile duct stones are classified according to their origin: (1) primary bile duct stones, forming initially in the bile duct (i.e., the current case); (2) secondary to gallbladder stones, originating in the gallbladder and passing spontaneously into the bile duct; and (3) secondary to or coexisting with intrahepatic bile duct stones. Patients with infected bile duct stones typically present with fever, abdominal pain and jaundice (Charcot's triad). The most common intervention for CBD stones is ERCP. Other commonly used interventions include intraoperative bile duct exploration, either laparoscopic or open.

Impacted stones at the lower end of the CBD or in the ampulla of Vater represent the most likely factors leading to failure of Laparoscopic common bile duct exploration. The classic explanation for Courvoisier's finding is based on the underlying pathologic process. With the presence of gallstones come repeated episodes of infection and subsequent fibrosis of the gallbladder. In the event that a gallstone causes the obstruction, the gallbladder is shrunken owing to fibrosis and is unlikely to be distensible and, hence, palpable. With other causes of obstruction, the gallbladder distends as a result of the back-pressure from obstructed bile flow.

However, recent experiments show that gallbladders are equally distensible in vitro, irrespective of the pathology, suggesting that chronicity of the obstruction is the key.

CONCLUSION

Ductal calculi should be suspected in a patient who presents with features of cholangitis (Charcot's triad), dilated CBD in ultrasound, irrespective of clinically palpable gallbladder. Open cholecystectomy with CBD exploration is the standard for complicated multiple CBD stones. Open cholecystectomy with CBD exploration offers excellent clearance rate of ductal calculi in large multiple impacted CBD stones.

Reference


courvoisier's gallbladder: law or sign?

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