Spontaneous Perforation of Gallbladder with Intrahepatic Bilioma

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Spontaneous perforation of gallbladder is uncommon. We report a rare case of perforation of the gallbladder due to gallstone disease with formation of a large intrahepatic bilioma. The patient was managed conservatively with percutaneous drainage of the intrahepatic collection followed by endoscopic retrograde cholangiopancreatography (ERCP) and cholecystectomy. (J CLIN EXP HEPATOL 2011;1:210–211)

Spontaneous perforations of gallbladder are uncommon. They may occur in 2–10% of patients with acute cholecystitis. Gallbladder perforations and associated complications are considered surgical emergencies. We report a rare case of perforation of the gallbladder due to gallstone disease with formation of a large intrahepatic bilioma. The patient was managed conservatively with percutaneous drainage of the intrahepatic collection followed by endoscopic retrograde cholangiopancreatography (ERCP) and cholecystectomy.

CASE REPORT

A 62-year-old male with no significant co-morbid conditions presented with complaints of pain abdomen of 1 month and fever for 15 days duration. On examination, the patient was febrile, anicteric, and had mild tenderness in the upper abdomen. Investigations revealed leukocytosis with mild rise in transaminases and markedly raised serum alkaline phosphatase. An ultrasound scan showed the presence of gallstones and a hypoechoic mass in the liver adjacent to the gallbladder. Abdominal computed tomography (CT) scan was suggestive of gallstones with a stone impacted at the neck of the gallbladder, acute cholecystitis with focal disruption of gallbladder wall and large collection in the adjacent liver parenchyma (Figures 1 and 2). The patient underwent percutaneous pigtail drainage of the collection with frank drainage of the bile. One week later, pigtail drain was removed after it stopped draining for 2 consecutive days and magnetic resonance imaging (MRI) abdomen showed complete resolution of collection.

Keywords: Biliary obstruction, cholecystitis, common bile duct stone, ERCP, gallstone

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Abbreviations: ERCP: endoscopic retrograde cholangiopancreatography; MRCP: magnetic resonance cholangiopancreatography; CT: computed tomography; MRI: magnetic resonance imaging

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The patient was planned for interval cholecystectomy but developed cholestatic jaundice after 2 weeks. Magnetic resonance cholangiopancreatography (MRCP) showed biliary obstruction with a small calculus impacted in the distal common bile duct. Endoscopic retrograde cholangiopancreatography and stone removal followed by

Figure 1 Contrast-enhanced computed tomography abdomen showing distended gallbladder and hyperdense calculi at the neck with irregularity and focal disruption of gallbladder wall (arrow).

Figure 2 Contrast-enhanced computed tomography abdomen showing well-defined intrahepatic hypodense collection (bilioma) measuring 7 cm × 5 cm with shaggy walls and mild peripheral enhancement seen in segments VIII and IVb.

cholecystectomy resulted in complete resolution of symptoms in this patient.

DISCUSSION

Perforations of the gallbladder may be spontaneous or traumatic. Spontaneous perforations of the gallbladder are uncommon occurring in 2–10% of patients with acute cholecystitis.¹ In general, this occurs in patients with acute cholecystitis who either delay or do not respond to the standard treatment. The postulated pathogenesis of this catastrophe is obstruction, stasis, intravesicular distension, increased intravesicular pressure, bacterial colonization, infection, avascularity, and necrosis leading on to perforation. Neimeier² classified gallbladder perforations into three types: type I perforations (16% of cases) are associated with acute free perforations and bile peritonitis and have the highest mortality rate; type II perforations (68%) are associated with subacute localized peritonitis with abscess formation; and type III perforations (16%) are associated with fistulous connections with adjacent organs or structures and are thought to be chronic. Gallbladder perforations and associated complications are considered surgical emergencies. Early diagnosis and treatment are crucial to decrease patient morbidity and mortality. Emergency surgery is usually required for type I, septic type II,

and type III perforations. Type II perforation can also be managed conservatively with or without aspiration of the abscess or percutaneous cholecystostomy.^{3,4} Our patient with gall bladder perforation had contained intrahepatic bilioma and recovered with nonsurgical management. The patient underwent cholecystectomy later and had an uneventful recovery.

In conclusion, our case highlights a rare but life-threatening complication occurring as the first manifestations of the gallstone disease. Such complications may be missed if not recognized early. Surgical treatment remains the standard of care but some patients may improve with nonsurgical treatment.

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