

Symptomatic calculi in a remnant gallbladder: a rare cause of post-cholecystectomy syndrome and biliary pancreatitis

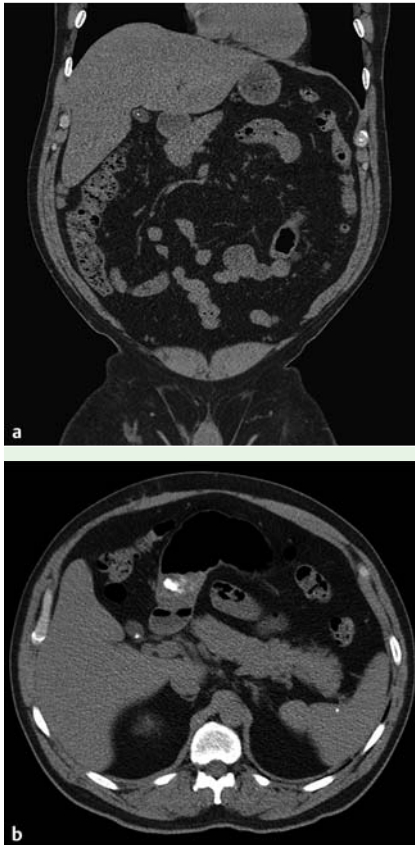


Fig. 1 Computed tomography (CT) scan of the abdomen and pelvis showing the remnant gallbladder containing small calculi in: **a** coronal view; **b** axial view.

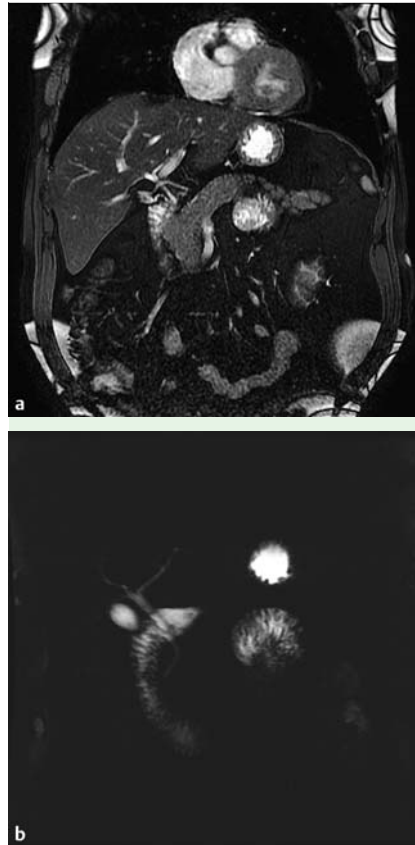


Fig. 2 The remnant gallbladder and the presence of small calculi within it were confirmed on: **a** magnetic resonance imaging (MRI); **b** magnetic resonance cholangiopancreatography (MRCP).

Biliary pain after cholecystectomy, known as post-cholecystectomy syndrome, is common and has a broad differential diagnosis. Here we present a case of biliary pancreatitis and intermittent biliary pain that was caused by a remnant gallbladder that contained calculi.

A 45-year-old man presented for evaluation of abdominal pain. He had undergone cholecystectomy 2 years previously and described intermittent right upper quadrant pain and bloating associated with fatty meals, which had begun a few months after the cholecystectomy. He had been hospitalized 3 months before presentation to us with biliary pancreatitis. His physical examination was notable for

mild right upper quadrant tenderness only. Laboratory results showed normal transaminases and bilirubin, but his alkaline phosphatase was minimally elevated. A computed tomography (CT) scan showed a small pouch with tiny calculi connected to the biliary tree (Fig. 1). This finding was confirmed by magnetic resonance cholangiopancreatography (MRCP) (Fig. 2).

Endoscopic retrograde cholangiopancreatography (ERCP) was therefore performed. The cholangiogram showed a normal main bile duct, but calculi within a cystic structure that was connected to the biliary tree through the cystic duct, compatible with a gallbladder remnant

(Fig. 3). A plastic stent was placed in the common bile duct (CBD) to facilitate intraoperative identification. The patient underwent resection of the gallbladder remnant 1 month later, following which he had no further symptoms.

Calculi in the gallbladder or cystic duct remnant account for less than 2.5% of cases of post-cholecystectomy syndrome but must be considered in any patient with recurrent biliary pain after cholecystectomy [1]. Typically, symptoms arise if the cystic duct remnant contains stones and is longer than 1 cm [2]. The cystic duct remnant dilates, giving the impression of a small gallbladder on imaging studies. Presentation can occur within weeks to months, but may be as long as decades after cholecystectomy. The condition can arise in those who have undergone either open or, more commonly, laparoscopic cholecystectomy [3,4].

Treatments include ERCP with sphincterotomy and possible stent placement to aid CBD drainage, with the definitive treatment being “re-cholecystectomy” [2], as in our patient. Successful extracorporeal shock-wave lithotripsy (ESWL) has also been reported [5]. While symptomatic calculi in a remnant gallbladder are rare, gastroenterologists should be aware of this diagnosis as endoscopic therapy may be indicated and surgical referral is usually warranted.

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Competing interests: None

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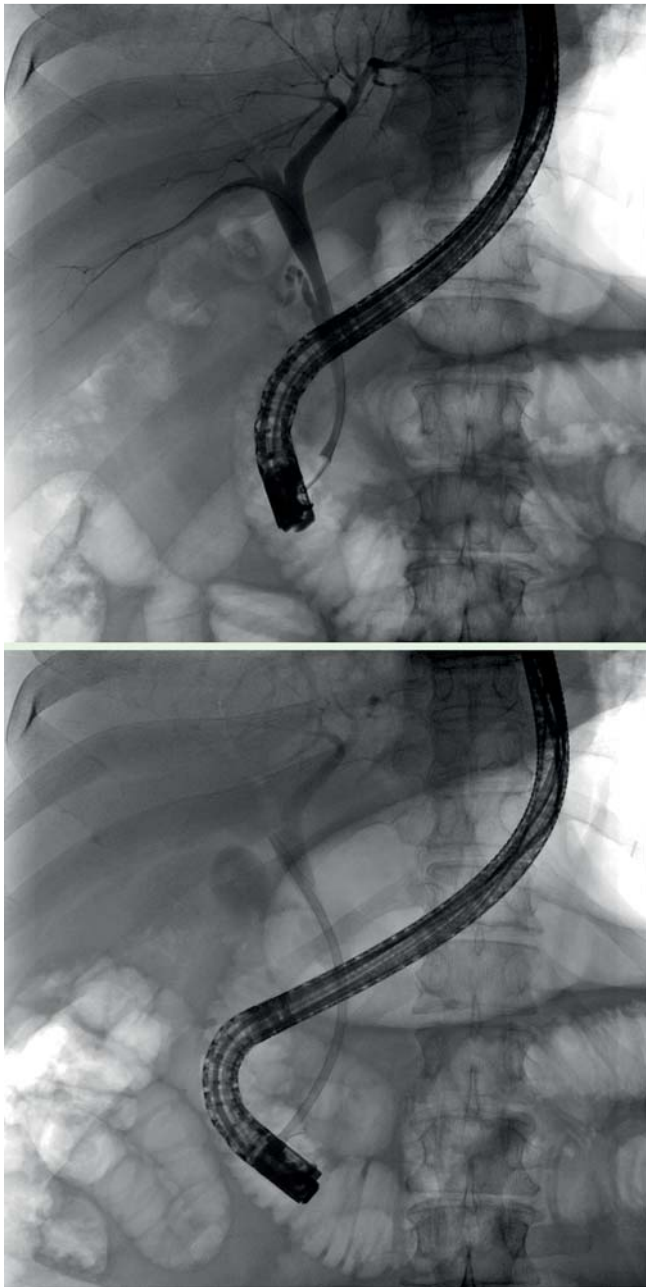


Fig. 3 View during endoscopic retrograde cholangiopancreatography (ERCP) showing the normal common bile duct and remnant gallbladder.

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