

Endoscopic Removal of Postcholecystectomy Clip Eroding in the Common Bile Duct Causing Recurrent Choledocholithiasis and Acute Cholangitis

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Introduction

- Postcholecystectomy clip migration into the CBD is a rare complication of laparoscopic cholecystectomy (LC) and can lead to recurrent choledocholithiasis and cholangitis.
- We present a case of a woman with recurrent acute cholangitis found to have a cholecystectomy clip embedded in the common bile duct (CBD), removed successfully by endoscopic retrograde cholangiopancreatography (ERCP) with SpyGlass cholangioscopy.

Case Description

- A 29-year-old pregnant woman, at 32 weeks gestation, presented for postprandial right upper quadrant pain, fever, and jaundice. Surgical history included LC five years prior.
- Her liver panel revealed AST 87 U/L, ALT 94 U/L, ALP 288 U/L, and total bilirubin 3.1mg/dL. CBD dilation with a 1 cm echogenic foci was seen on abdominal ultrasound.
- ERCP revealed a retained stone which was removed by balloon extraction followed by placement of a plastic biliary stent (Figure 1a). Complete clearance of the biliary tree was confirmed on fluoroscopy.
- A repeat ERCP post-partum revealed a filling defect in the upper third of the CBD with SpyGlass cholangioscopy confirming a large, retained CBD stone.
- Electrohydraulic lithotripsy was performed, and a cholecystectomy clip was noted within the stone (Figure 1b-c). A biliary stent was placed, and the procedure was stopped.

Images

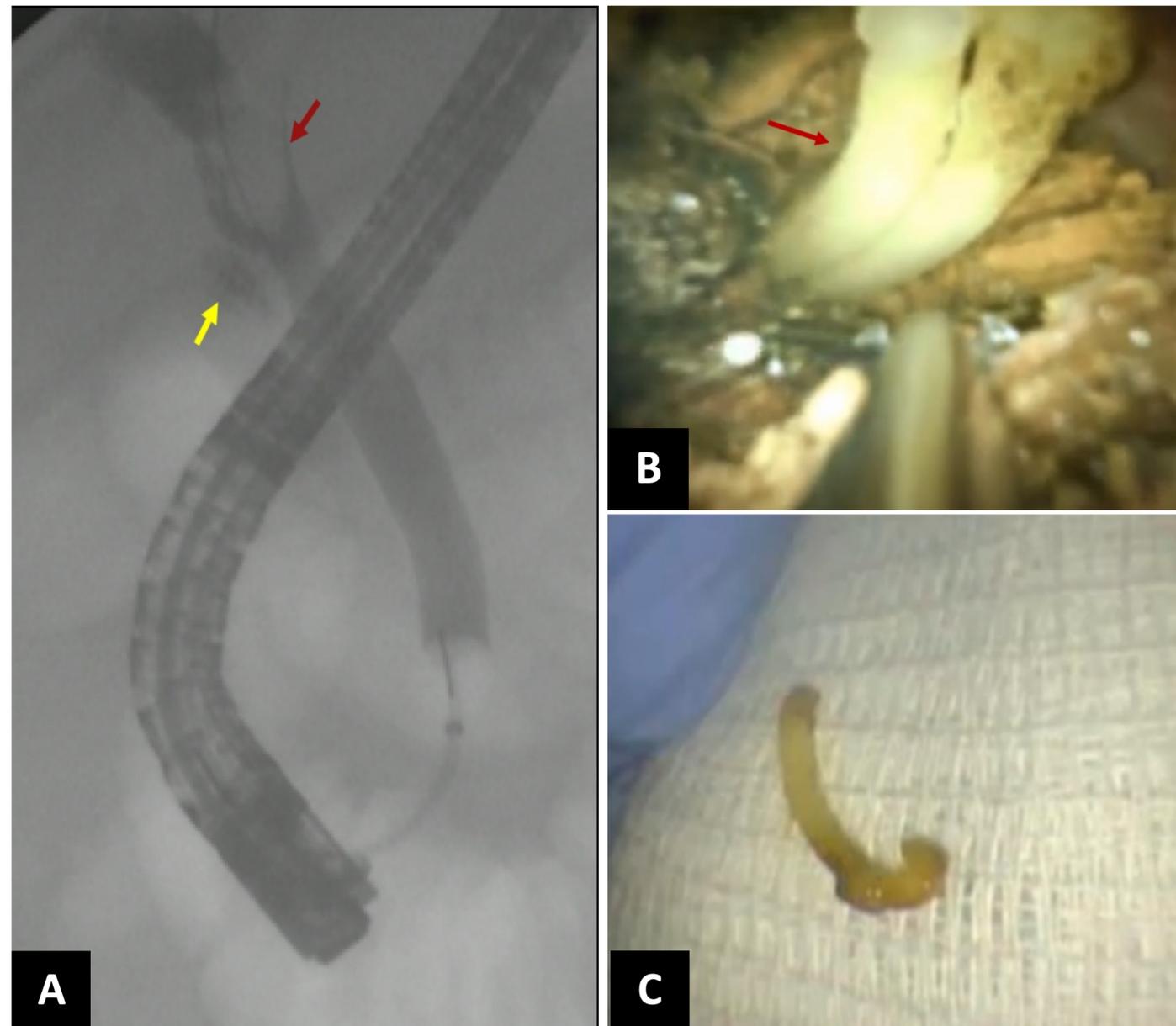


Figure 1: A. ERCP image showing impacted stone in the common bile duct (red arrow) and cholecystectomy clip (yellow arrow). B. Spyglass cholangioscopy showing cholecystectomy clip (red arrow). C. Retrieved cholecystectomy clip.

Case Description (contd.)

- After multidisciplinary discussion with hepatobiliary surgeons, a plan was made to remove the clip endoscopically.
- After discussing the potential risks of perforation and bile leak, the patient was in agreement and ERCP was pursued.
- The clip was grasped with SpyBite forceps and successfully removed with gentle traction.
- The final occlusion cholangiogram showed no contrast extravasation, and a plastic biliary stent was placed. The patient remains asymptomatic.

Discussion

- Postcholecystectomy clip migration is a rare complication of LC.
- The sequence of events remains unclear, but a proposed mechanism includes stump necrosis leading to clip migration towards a path of low resistance into the CBD. The clip can act as a nidus for stone formation and infection.
- Preventative techniques include placing the clip away from the cystic duct and CBD junction and applying a minimum number of clips.
- Although rare, cholecystectomy clip migration should be considered in the differential diagnosis of cholangitis in patients with a previous history of LC.
- Endoscopists should be aware of this complication and detailed fluoroscopic examination and direct visualization by cholangioscopy should be highly considered based on local expertise.