

Cholangioscopic removal of post-cholecystectomy surgical clips migrated inside the common hepatic duct ▶

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Surgical clip migration inside the biliary tree is a rare complication after laparoscopic cholecystectomy, may be associated with gallstone formation and cholangitis [1, 2], and is usually treated with endoscopic retrograde cholangiopancreatography (ERCP) [3].

A 75-year-old man was admitted with cholangitis. Imaging showed biliary dilatation above a common hepatic duct stricture close to surgical clips. Five years earlier, the patient had undergone laparoscopic cholecystectomy for cholelithiasis, complicated by Strasberg type C biliary fistula formation requiring radiological and surgical interventions.

We performed cholangioscopy (Spyglass DSII, US Boston Scientific), showing a common hepatic duct fibrotic annular stricture with 2-mm residual lumen. Mechanical and balloon dilatation of the stricture was performed, revealing two surgical clips immediately above. The clips were embedded in fibrotic tissue and obstructed the cholangioscope passage. Excision of the fibrotic tissue with Spybite Max forceps enabled us to remove the clips with Spyglass Retrieval Snare and to advance the cholangioscope further (▶ Video 1). Right intrahepatic duct gallstones were identified and treated with electrohydraulic lithotripsy, and a plastic stent was provisionally placed across the stricture to ensure drainage.

The patient was discharged home asymptomatic after 24 hours. Three months later, the plastic stent was removed. One year after the procedure, the patient remains well with no further cholangitis episodes.

Albeit rare, post-cholecystectomy surgical clip migration inside the biliary tree should be considered when obstructive jaundice occurs. To date, standard treatment is ERCP and clip extraction with a balloon or retrieval basket. However, this is not always feasible. If clips have migrated into the intrahepatic bile

▶ VIDEO



We report the case of a 75-year-old man admitted with cholangitis.

Imaging showed biliary dilatation above a common hepatic duct stricture close to surgical clips.

Five years earlier, the patient had undergone laparoscopic cholecystectomy for cholelithiasis, complicated by Strasberg type C biliary fistula formation, requiring radiological and surgical interventions.



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▶ **Video 1** Cholangioscopic removal of post-cholecystectomy surgical clips within the common hepatic duct.

ducts, removal by cholangioscopy is more likely to be successful than ERCP due to visualization and four-way bending of the device [4]. Moreover, as described in our case, when clips become embedded in the bile duct wall tissue, removal under direct visualization with cholangioscopy and its related devices appears to be the only feasible option.

Conflict of Interest

The authors declare that they have no conflict of interest.

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