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Unfortunate adverse event resulting from clip migration after cholecystectomy

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Laparoscopic cholecystectomy complications have been reported to be less than 5%.[1] Late complications include biliary strictures and postcholecystectomy clip migration (PCCM). Despite the increasing number of cholecystectomies being performed annually, PCCM remains rare.[2]

A 75-year-old woman who had a history of cholecystectomy for gallstone disease 2 years earlier was readmitted 2 months after cholecystectomy for residual choledocholithiasis. The patient was managed by endoscopic retrograde cholangiopancreatography (ERCP) extraction. Recently, she was referred to our center for

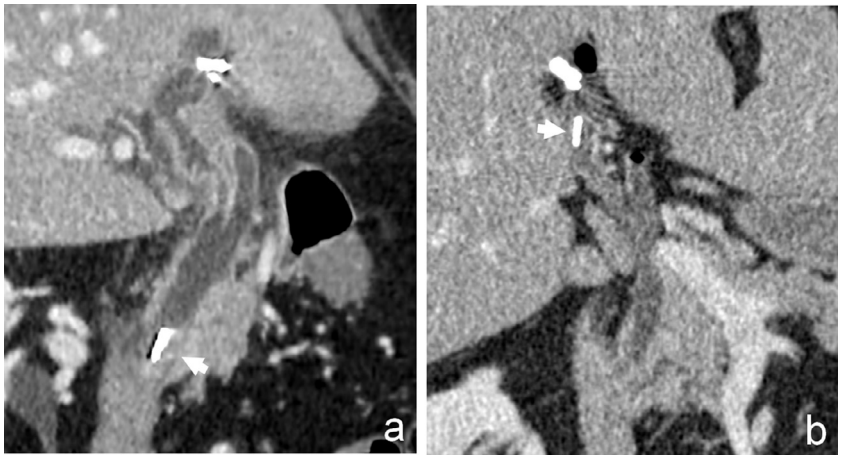

Fig. 1. (a) CT scan revealed an occluding hyperdense material in the lower common bile duct secondary to postcholecystectomy clip migration (*white arrow*). (b) CT scan (2 years earlier) showed metal clips correctly positioned on cystic duct (*white arrow*) and cystic artery.

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abdominal pain and fever. Physical examination and the laboratory analysis, including liver-associated enzymes, revealed jaundice, elevated bilirubin, cytolysis, cholestasis, and increased inflammatory tests (white blood count, C-reactive protein). Computed tomography (CT) of the upper abdomen showed dilatation of the intrahepatic bile duct and common bile duct (CBD). No choledocholithiasis was found in the CBD. However, the CT scan revealed an occluding hyperdense material in the lower CBD secondary to PCCM (Fig 1a). In 2016, CT scan showed metal clips correctly positioned on cystic duct and artery (Fig 1b). The patient underwent an ERCP that found an ampullary stenosis. A sphincterotomy was performed to remove the migrated metal clip. The post-ERCP course was uneventful, and the patient was discharged from hospital 3 days later.

Laparoscopic cholecystectomy is the gold standard for the management of symptomatic gallstones disease. Since its introduction, surgical hemostatic clips have been widely and safely used. The first case of PCCM was reported in 1978.[3] PCCM with resultant biliary complications are rare with fewer than 100 cases reported.[2] PCCM could result in other complications, such as duodenal ulcer or clip embolism.[4,5] Explanations that contributed to PCCM included the following: bile duct injuries secondary to incorrect or many clip placements, bile leak and biloma formation, and intraoperative difficulties secondary to inflammatory state or bleeding. ERCP, which has a success rate of 85%, should be the modality of choice in the management of PCCM.[2] Surgery or percutaneous transhepatic cholangiography should be reserved as rescue procedures, especially in the presence of difficult biliary strictures.

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