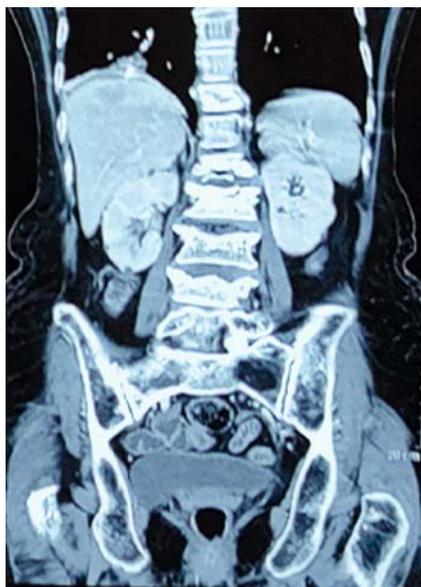


Endoscopic management of a migrated biliary stent in the pleura: a rare complication

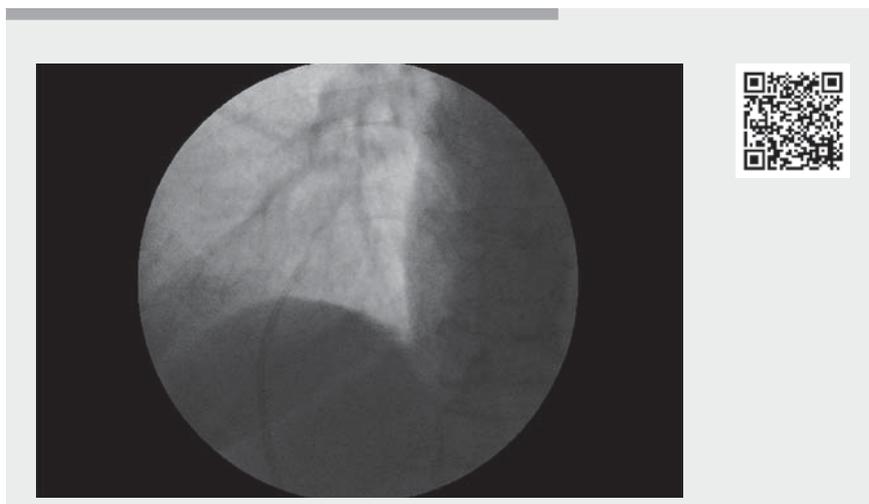
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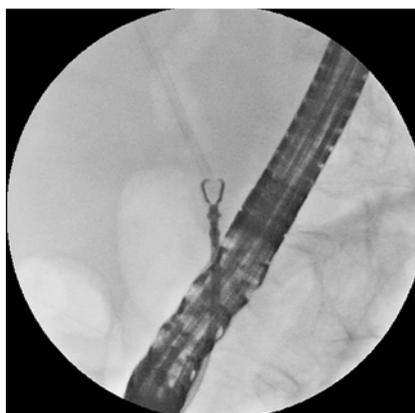
► **Fig. 1** Computed tomography image showing migrated biliary stent in the pleural cavity.

A 65-year-old woman presented with fever, cough, and right upper quadrant abdominal pain. She had undergone endoscopic retrograde cholangiopancreatography (ERCP) 3 weeks earlier for choledocholithiasis, with stent placement. There was a history of attempted stent removal, which failed, at another institute. At presentation, her laboratory parameters were normal, except for white blood cells of 22 570/ μ L and hemoglobin of 9 g/dL. A computed tomography scan revealed migration of the biliary stent in the pleura (► **Fig. 1**).

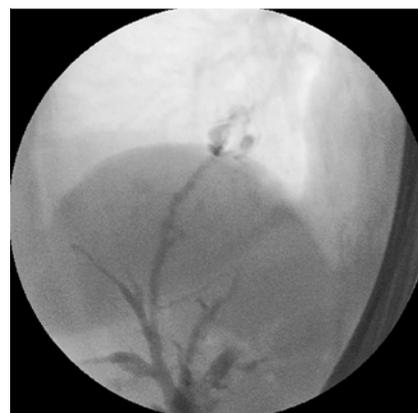
During ERCP, a migrated biliary stent was noted in the right pleural cavity at fluoroscopy (► **Video 1**), which was removed using a rat tooth alligator jaw grasping forceps (FG-42L-1; Olympus, Tokyo, Japan) (► **Fig. 2**). The common bile duct (CBD) was cannulated, and cholangiogram revealed a dilated CBD with stones and extravasation of contrast into the pleura (► **Fig. 3**). Endoscopic sphincteroplasty was performed using a controlled



► **Video 1** Migrated biliary stent seen in right pleural cavity.



► **Fig. 2** Use of rat tooth forceps to remove the migrated stent.



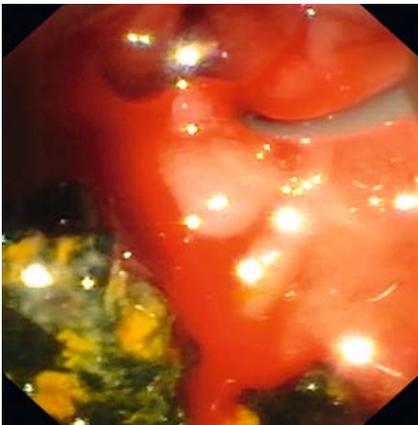
► **Fig. 3** Cholangiogram showing extravasation of contrast into the pleura.

radial expansion wire-guided balloon up to 12 mm (Boston Scientific, Marlborough, Massachusetts, USA). Multiple balloon sweeps were done (► **Fig. 4**) and stones were retrieved (► **Fig. 5**). Complete ductal clearance was achieved. A prophylactic 10Fr plastic biliary stent was inserted. The patient was advised to undergo cholecystectomy and subsequent stent removal. Stent migration into the pleura is a late complication and rarely encountered,

and to the best of our knowledge has not been reported previously. Biliary stents have been routinely used during ERCP for benign and malignant conditions [1]. However, the incidence of migration varies between 8% and 10% [2, 3], with complications including cholangitis and perforation. The common sites for migration include the CBD, duodenum, and colon [3]. Despite being commonly encountered, these patients are usually asymptomatic. Biliary stents can perfo-



► **Fig. 4** Endoscopic sphincteroplasty using a controlled radial expansion wire-guided balloon to extract stones.



► **Fig. 5** Stones were retrieved.

rate the luminal wall but with appropriate vigilance and a good understanding of endoscopic retrieval techniques, these can be removed safely.

Endoscopy_UCTN_Code_TTT_1AR_2AZ

Acknowledgments

We thank Dr. Rajen Daftary for his dedicated anesthesia care during the procedure. We are grateful to Mr. Milind Jadhav for editing the endoscopic pictures.

Competing interests

The authors declare that they have no conflict of interest.

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Endoscopy 2023; 55: E436–E437

DOI 10.1055/a-2011-5480

ISSN 0013-726X

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