

Cholangioscopy-guided salvage retrieval of a migrated stent at a hepaticojejunostomy anastomosis using a colonoscope



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A 64-year-old woman with a history of cholangiocarcinoma status post resection with a Roux-en-Y hepaticojejunostomy presented with recurrent cholangitis because of stricturing at the hepaticojejunostomy anastomosis (Fig. 1). The patient had previously received bilateral percutaneous biliary drainage because of failed attempts at endoscopic stenting across the anastomosis. Unfortunately, a percutaneous drain inadvertently perforated through the afferent limb (Fig. 2), and the patient was subsequently referred for a repeat attempt at endoscopic drainage. During the index ERCP, which was performed with a pediatric colonoscope, bilateral stents were placed in the left and right hepatic ducts with removal of the percutaneous drains.

At the first follow-up ERCP (Video 1, available online at www.videogie.org), the hepaticojejunostomy was found to be very short in length and a partially occluded plastic stent was seen emerging from the left hepatic duct (Fig. 3). As the left hepatic duct was severely angulated to the visual left, we opted to attempt guidewire cannulation side by side with the previously placed stent instead of simply removing the biliary stent before attempting cannulation. Initial wire cannulation through the previously placed stent to maintain access was not attempted because of the restricted cannulation positioning afforded by the colonoscope in relation to the orientation of the stent. These attempts inadvertently led to stent migration into the left hepatic duct. As attempts to retrieve the stent with biopsy forceps were unsuccessful, the decision was made to perform cholangioscopy through the adult colonoscope. Using the cholangioscope (SpyScope DS II; Boston Scientific, Marlborough, Mass, USA), we identified the migrated stent (Fig. 4) and tried to remove it using a retrieval snare (SpySnare; Boston Scientific) and a basket (SpyBasket; Boston Scientific). After several attempts, we successfully removed the stent using forceps (SpyBite; Boston Scientific).

The procedure ended with the placement of an 8.5F plastic stent into the left hepatic duct (Fig. 5). After more than 1 year of follow-ups, the anastomotic stricture resolved.

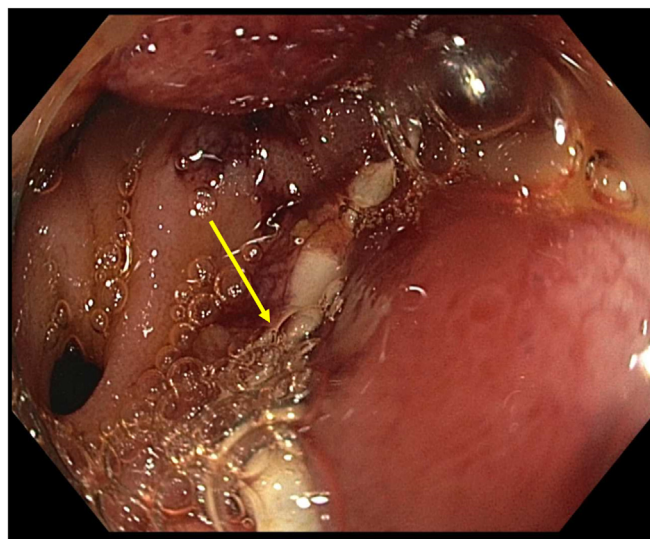


Figure 1. Initial appearance of a hepaticojejunostomy anastomotic stricture (arrow).

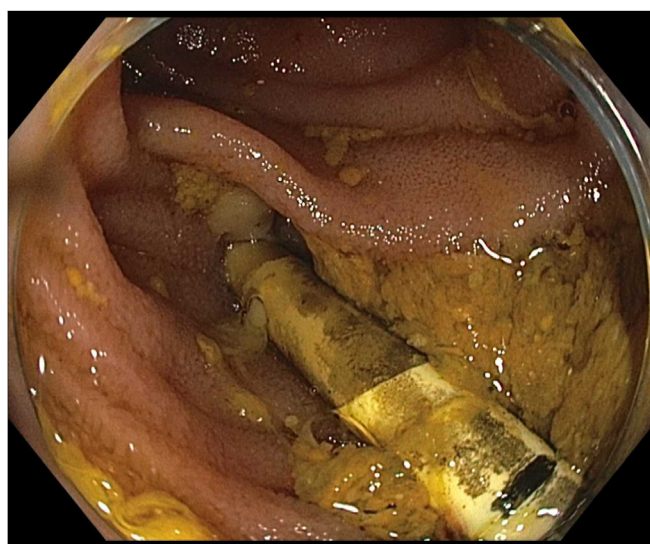


Figure 2. Percutaneous biliary drain perforating through the jejunal afferent limb.

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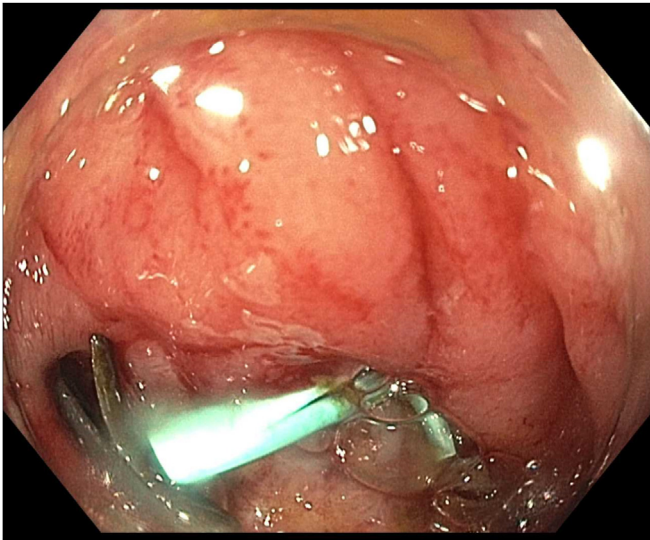


Figure 3. Previously placed biliary stents at the hepaticojejunostomy anastomosis with the stent on the visual right (*bright green*) going into the right hepatic duct and the stent on the visual left (*dark green*) going into the left hepatic duct.

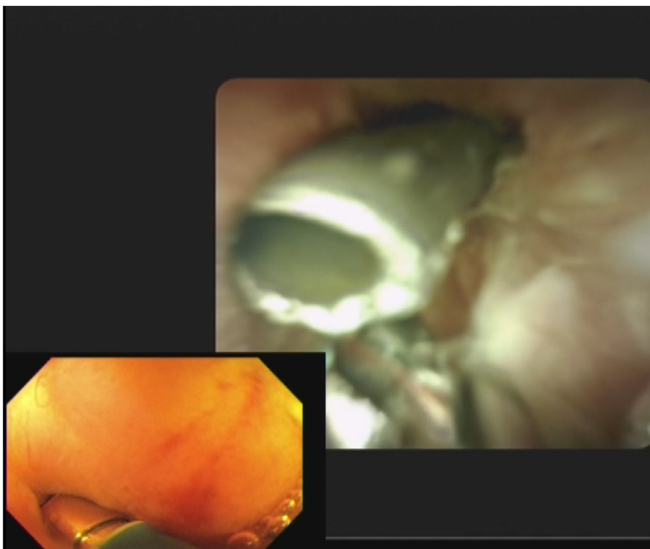


Figure 4. Cholangioscopy visualization of the migrated biliary stent.

Hepaticojejunostomy anastomotic strictures represent a relevant adverse event of biliary reconstruction, with a reported incidence of 3% to 13%.¹ These strictures can be successfully managed via enteroscopy-assisted ERCP with dilation and stent deployment.² Inward stent migration occurs in up to 4% of biliary plastic stents in patients with native anatomy.^{2,3} Cholangioscopy is considered a viable option for stent retrieval in patients without altered anatomy when standard maneuvers such as balloon sweeping or basket retrieval fail.^{4,5} However, reports on the management of plastic stent migration in surgically altered anatomy are lacking in the literature. This report highlights

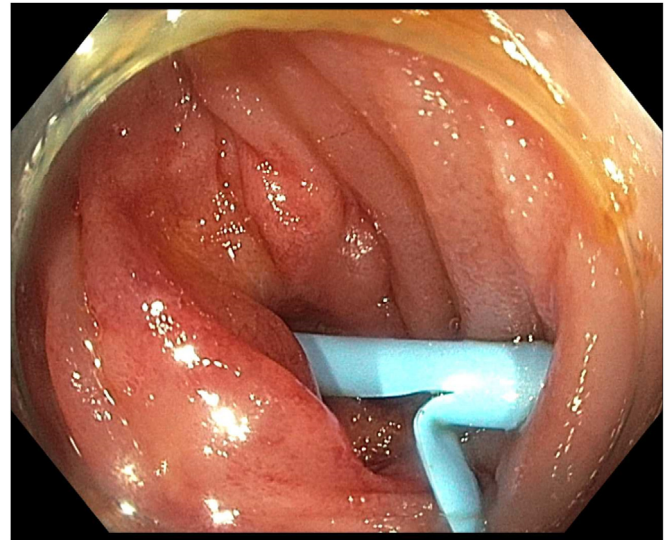


Figure 5. Placement of new biliary stent after retrieval of migrated stent.

the usefulness of cholangioscopy as a viable tool for retrieving proximally migrated stents that cannot be extracted using standard techniques, even in cases of altered anatomy.

DISCLOSURE

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