

DEN Video Article

Single-balloon enteroscopy assisted successful removal of a migrated covered self-expandable metal stent for hepaticojejunostomy anastomotic stenosis

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BRIEF EXPLANATION

AN 87-YEAR-OLD WOMAN who had undergone left hepatectomy and Roux-en-Y hepaticojejunostomy for intrahepatic cholangiocarcinoma suffered from refractory

cholangitis due to benign hepaticojejunostomy anastomotic stenosis (HJ-s) for 10 years. She underwent a total of ten sessions of biliary drainage and dilation of anastomotic stenosis with a balloon dilator and plastic stents using single-balloon enteroscopy (SBE)-assisted

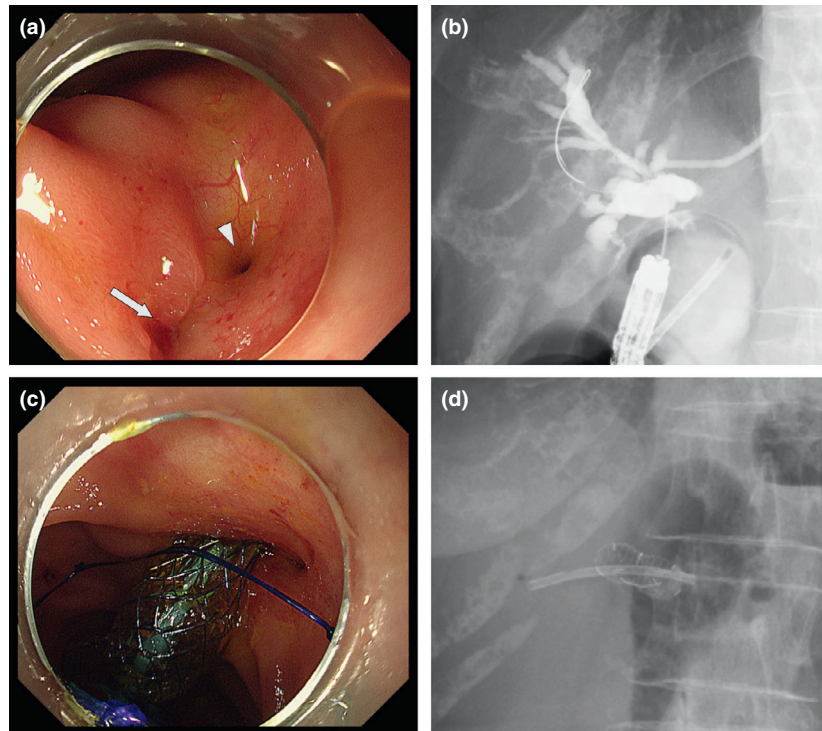


Figure 1 (a) Endoscopic image of hepaticojejunostomy anastomotic stenosis (HJ-s). Arrow: the right-posterior branch, arrowhead: the right-anterior branch. (b) Single-balloon enteroscopy-assisted retrograde cholangiography revealed a dilated right-posterior bile duct and an anastomotic stenosis. (c,d) A covered self-expandable metal stent (SEMS) placed for HJ-s with a plastic stent in the SEMS for axial alignment and anti-migration.

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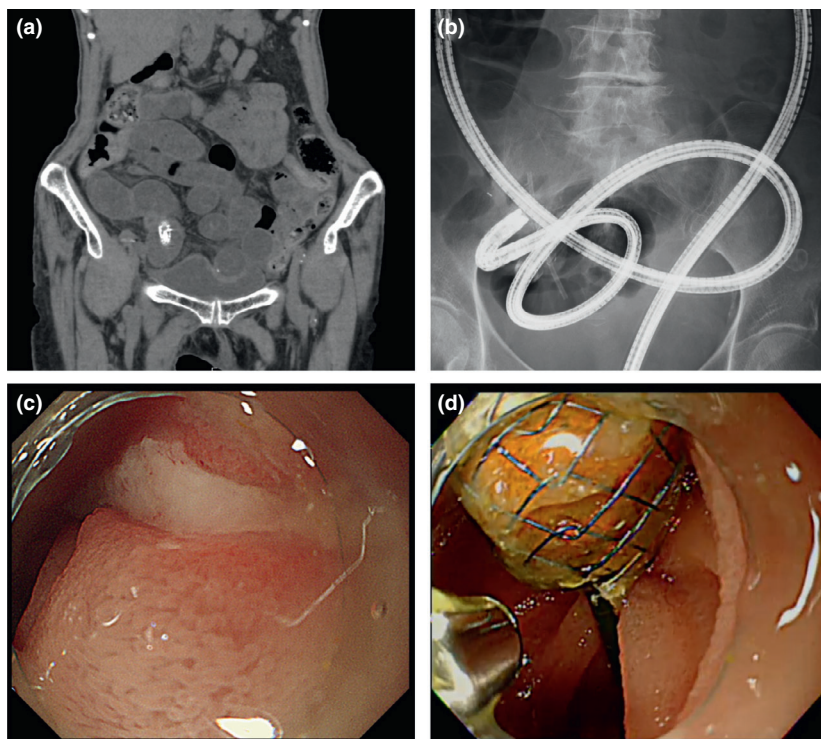


Figure 2 (a) The migrated self-expandable metal stent (SEMS) trapped in the adhered deep small intestine causing small-bowel obstruction. (b) With great difficulty, the migrated SEMS was finally reached using a per-anal long-type single-balloon enteroscopy. (c) An ulcer formed due to lacerations caused by the migrated SEMS. (d) The migrated SEMS was carefully removed because of small intestine narrowing and ulceration.

endoscopic retrograde cholangiopancreatography; however, cholangitis recurred continuously. A limitation of the previous dilation procedure was considered and, thus, a 10-mm-caliber and 3-cm-length fully covered self-expandable metal stent (SEMS) for HJ-s was temporarily placed to achieve sufficient dilation. Additionally, a plastic stent was placed inside of the SEMS for axial alignment and anti-migration (Fig. 1). Refractory cholangitis was resolved after SEMS deployment; however, the SEMS migrated after 2 months and stagnated in the deep small intestine, causing ileus. Surgical treatment was avoided considering her advanced age and history of hepatectomy; therefore, retrieval of the SEMS was attempted using SBE per-orally; however, the SEMS could not be reached. On the next day, an SBE was inserted per-anally. Although passing the ileum was extremely challenging due to severe adhesion, the SEMS was reached finally. The small intestine was narrowing and ulcerated; the migrated SEMS was pulled into the transparent cap fixed on the tip of the endoscope,¹ and successfully removed without perforation and bleeding through careful

manipulation (Fig. 2, Video S1). At post-procedure, the ileus improved.

Temporal covered SEMS placement is an effective treatment for biliary anastomotic stenosis,^{2,3} and severe adverse events (AEs) have not yet been reported. However, patients with hepaticojejunostomy are highly at risk for intestinal adhesions. Therefore, the occurrence of ileus due to SEMS migration should be considered as one of the severe AEs when performing SEMS implantation in HJ-s.

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CONFLICT OF INTEREST

A.K. HAS RECEIVED honoraria as a lecture fee from Olympus Co., Tokyo, Japan, and is an Associate Editor of *Digestive Endoscopy*. All other authors declare that they have no conflicts of interest to disclose.

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SUPPORTING INFORMATION

ADDITIONAL SUPPORTING INFORMATION may be found in the online version of this article at the publisher’s web site.

Video S1 Temporal covered self-expandable metal stent (SEMS) placement is an effective treatment for biliary anastomotic stenosis, and severe adverse events (AEs) have not yet been reported. However, patients with hepaticojejunostomy are highly at risk for intestinal adhesions. Therefore, the occurrence of ileus due to SEMS migration should be considered as one of the severe AEs when performing SEMS implantation in hepaticojejunostomy stenosis.