

Rescue technique after endoscopic ultrasound-guided hepaticogastrostomy stent dislocation

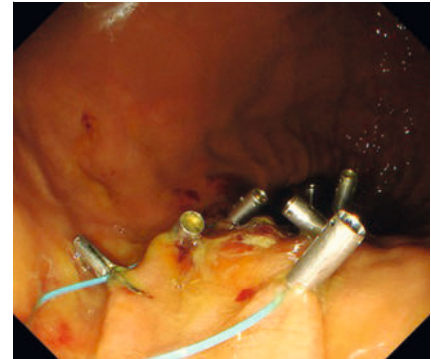
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► **Fig. 1** Computed tomography image shows dislocation of an endoscopic ultrasound-guided hepaticogastrostomy (EUS-HGS) stent.



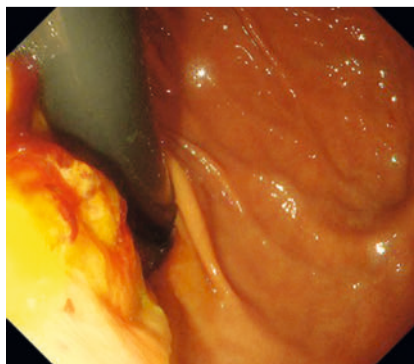
► **Fig. 2** The EUS-HGS stent has become dislocated from the intrahepatic bile duct and leakage of contrast medium into the abdominal cavity is observed.



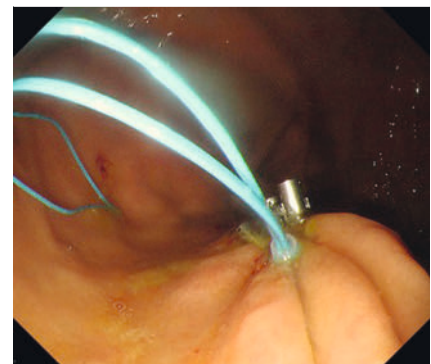
► **Fig. 4** An endoloop is placed in the open state along the edge of the defect and anchored at multiple sites by clips that allow repeated opening and closing.

Endoscopic ultrasound-guided hepaticogastrostomy (EUS-HGS) has been indicated after failed endoscopic retrograde cholangiopancreatography (ERCP). Critical adverse events such as stent migration or dislocation can occur during EUS-HGS [1,2,3]. If a fistula is not formed after the occurrence of these adverse events, an alternative biliary drainage technique is required, such as percutaneous transhepatic biliary drainage and endoscopic suture of the anastomotic defect left behind after the EUS-HGS stent. A novel endoscopic suture using an endoloop and endoclips has recently been reported for use after upper gastrointestinal perforations [4,5]. We herein describe the successful use of these techniques for endoscopic treatment after EUS-HGS stent dislocation.

A 57-year-old man was admitted with obstructive jaundice due to inoperable pancreatic cancer. Because the second part of the duodenum was obstructed, EUS-HGS was performed using a partially covered self-expandable metal stent. However, abdominal pain and recurrence of obstructive jaundice were noted 5 days later, and CT revealed dislocation of the stent (► **Fig. 1**). After insertion of the duodenoscope in endoscopic re-intervention, attempts to insert the guidewire into the intrahepatic bile duct were unsuccessful (► **Fig. 2**). Therefore, EUS-



► **Fig. 3** The anastomotic defect is visible after removal of the stent.



► **Fig. 5** Successful suturing of the anastomotic defect.

guided choledochoduodenostomy was performed. The EUS-HGS stent was then removed. A single-channel endoscope was inserted to perform endoscopic suturing. After locating the anastomotic defect left behind after the EUS-HGS stent (► **Fig. 3**), an endoloop was grasped by the tip of the endoscope from the outside and advanced to this site along with the endoscope. The endoloop was placed in the open state along the edge of the defect and anchored at multiple sites by clips that allow repeated opening and closing (► **Fig. 4**). Finally, the anastomotic defect

was sutured by tightening the fixed endoloop (► **Fig. 5**, ► **Video 1**). These procedures were successfully performed without any adverse events.

In conclusion, the present technique may be useful for troubleshooting during EUS-HGS, particularly in the case of stent dislocation.

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Video 1 Novel endoscopic suture using an endoloop and endoclips successfully deployed for endoscopic treatment after dislocation of an endoscopic ultrasound-guided hepaticogastrostomy stent.

Conflict of Interest

The authors declare that they have no conflict of interest.

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CORRECTION

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In the above-mentioned article the pagination of the PDF has been corrected. This was corrected in the online version on 22 March, 2024.