

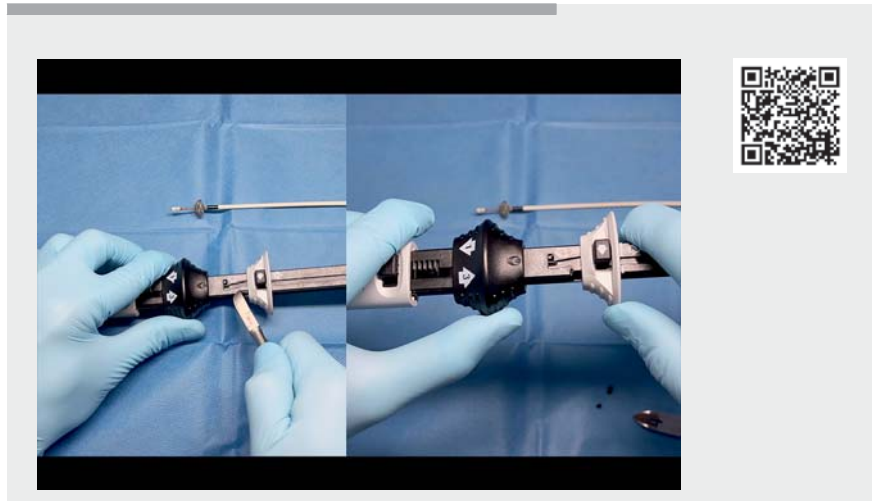
A novel salvage method to recapture the maldeployed distal flange of a lumen-apposing metal stent

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Endoscopic ultrasonography-guided choledochoduodenostomy (EUS-CDS) using an electrocautery-enhanced lumen-apposing metal stent (LAMS) is an effective tool in the endoscopic management of biliary obstruction [1]. Complications can occur during delivery of the LAMS, and these include maldeployment [2]. Several salvage methods have been described, such as stent-in stent, position adjustment post-full deployment [3], and natural orifice transluminal endoscopic surgery (NOTES) [4]. We describe a novel salvage method to recapture a partially deployed LAMS (► **Video 1**).

A 65-year-old woman with an inoperable pancreatic head cancer was referred for biliary drainage. On EUS, the common bile duct (CBD) was found to be dilated at 20 mm. A 6-mm (lumen diameter) by 8-mm (saddle length) electrocautery-enhanced LAMS (Axios; Boston Scientific) was used to perform EUS-CDS in order to drain the obstructed bile duct. A freehand puncture of the CBD was performed and a guidewire was inserted as a safety measure. The distal flange was then fully deployed. Ultrasonography confirmed maldeployment outside of the CBD, with the stent being located in between the duodenal wall and the CBD.

The stent deployment mechanism contains a plastic safety latch that prevents accidental retraction of the sheath. This latch was cut using a wire cutter (► **Fig. 1**). Without the latch, it was possible to push down the grey hub and recapture the distal flange. Once the distal flange had been recaptured, the stent delivery system was then advanced further into the bile duct and the recaptured stent was redeployed as usual. Finally, the correct placement of the stent was confirmed on endoscopic view, showing a good flow of bile out through the stent.



► **Video 1** Endoscopic ultrasonographic views of the novel salvage method being used to recapture the maldeployed distal flange of a lumen-apposing metal stent and detailed view of the plastic safety latch being cut, which allows the grey hub to be pushed down, recapturing the distal flange and allowing the stent to be redeployed.



► **Fig. 1** Photograph showing the plastic safety latch of the stent deployment mechanism being cut.

In summary, EUS-CDS with an electrocautery-enhanced LAMS is an effective tool to achieve biliary drainage; however, the procedure can be complicated by maldeployment. With our novel salvage method, it was possible to recapture the stent and successfully redeploy it.

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Note: This salvage method is not endorsed by the manufacturer.

Competing interests

The authors declare that they have no conflict of interest.

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References

- [1] Kuraoka N, Hara K, Okuno N et al. Outcomes of EUS-guided choledochoduodenostomy as primary drainage for distal biliary obstruction with covered self-expandable metallic stents. *Endosc Int Open* 2020; 8: E861–E868
- [2] Iqbal U, Khara HS, Hu Y et al. EUS-guided gastroenterostomy for the management of gastric outlet obstruction: A systematic review and meta-analysis. *Endosc Ultrasound* 2020; 9: 16–23
- [3] Hsueh W, Shah-Khan SM, Stemple M et al. Salvage of a misdeployed 20-mm lumen-apposing metal stent by use of a through-the-scope esophageal stent. *VideoGIE* 2019; 4: 200–202
- [4] Tyberg A, Saumoy M, Kahaleh M. Using NOTES to salvage a misdeployed lumen-apposing metal stent during an endoscopic ultrasound-guided gastroenterostomy. *Endoscopy* 2017; 49: 1007–1008

Bibliography

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