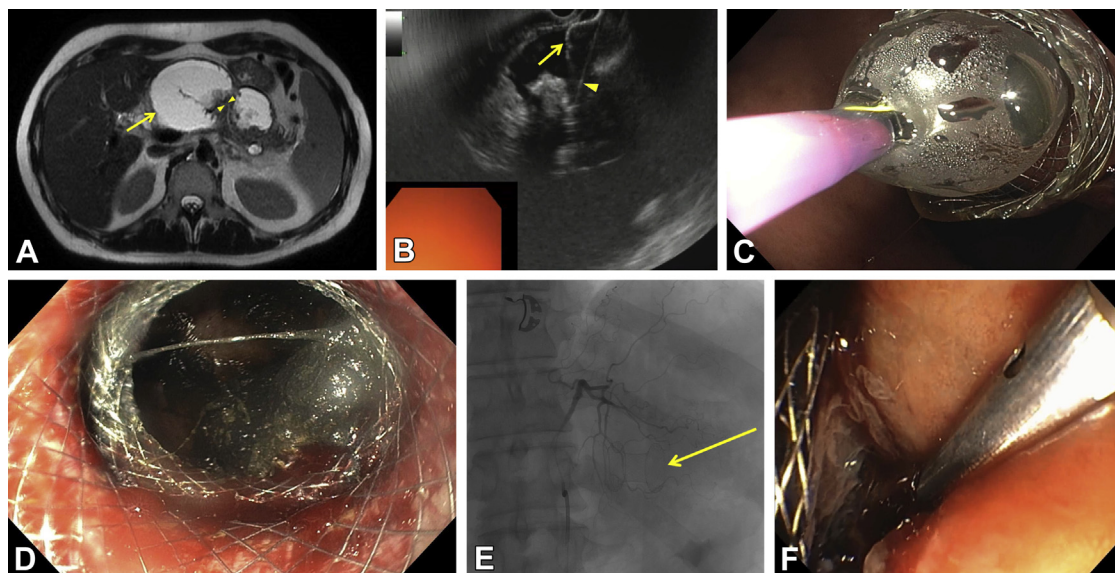


## Massive bleeding after EUS-guided walled-off necrosis drainage



**Figure 1.** **A**, Preprocedural abdominal MRI demonstrating a large (12.3 × 7.4 × 6.4 cm) complex fluid collection with a thick outer wall surrounding the pancreatic body (*arrow*) and suspected disruption of the pancreatic duct (*arrowheads*). **B**, EUS view demonstrating the LAMS catheter (*arrowhead*) inside the collection, and the distal end of the deployed stent (*arrow*). **C**, Upper endoscopic view showing dilation of the cystgastrostomy by use of a wire-guided dilating balloon. **D**, Upper endoscopic view showing bleeding at the proximal end of the LAMS (gastric side). **E**, Arteriographic view showing the deployed LAMS (*arrow*) and no evidence of extravasation of contrast material. **F**, Duodenoscopic view revealing the previously placed cystgastrostomy stent on the gastric body. A hemostatic clip is seen at the site of active bleeding underneath the stent. **G**, EGD view demonstrating the gastric side of the cystgastrostomy without bleeding. **H**, MRI revealing nearly resolved walled-off necrosis (*arrow*). **I**, EGD views before (*left*) and after (*right*) LAMS removal. *MRI*, magnetic resonance imaging; *LAMS*, lumen-apposing metal stent. The *arrow* represents the place where the stent was.

A 58-year-old man with a history of necrotizing pancreatitis of biliary causes 8 weeks previously presented with a 20-pound weight loss and daily epigastric pain. Abdominal magnetic resonance imaging (MRI) demonstrated a 12.3-cm collection surrounding the pancreatic body with a large amount of debris, consistent with walled-off necrosis (WON) (Fig. 1A). Given the collection size and the patient's symptoms, we proceeded with EUS-guided drainage using a lumen-apposing metal stent (LAMS).

Once an appropriate position was identified, the posterior wall of the gastric body and the WON were punctured under sonographic guidance by use of an electrocautery-enhanced LAMS (Hot-Axios Stent, 15 × 10 mm, Boston Scientific, Natick, Mass). Pure cut current with 100 W was used to advance the LAMS in a single step with subsequent deployment (Fig. 1B). The stent was dilated to 15 mm by use of a wire-guided dilating balloon (Fig. 1C). Immediate bleeding was seen at the gastric side of the

LAMS, which subsided spontaneously (Fig. 1D). The patient was hospitalized for overnight observation. Three hours later, he experienced hematochezia with hemodynamic instability (hemoglobin dropped from 13.1 to 7.3 g/dL). He was transferred to the intensive care unit, where fluid resuscitation was provided. A CT angiogram and an arteriogram did not demonstrate any evidence of bleeding (Fig. 1E). No therapy was performed. Intermittent hematochezia persisted over the next 2 days. EGD revealed intermittent active bleeding along the underside of the LAMS along the gastric lumen. Attempts to place a hemoclip were challenging with a forward-viewing gastroscope. This was exchanged for a duodenoscope (Olympus America, Center Valley, Pa), and a hemostatic clip (Boston Scientific Corporation, Marlborough, Mass) was successfully placed at the site of active bleeding (Fig. 1F). Repeated EGD the following day demonstrated no further bleeding (Fig. 1G). He was

Written transcript of the video audio is available online at [www.VideoGIE.org](http://www.VideoGIE.org).

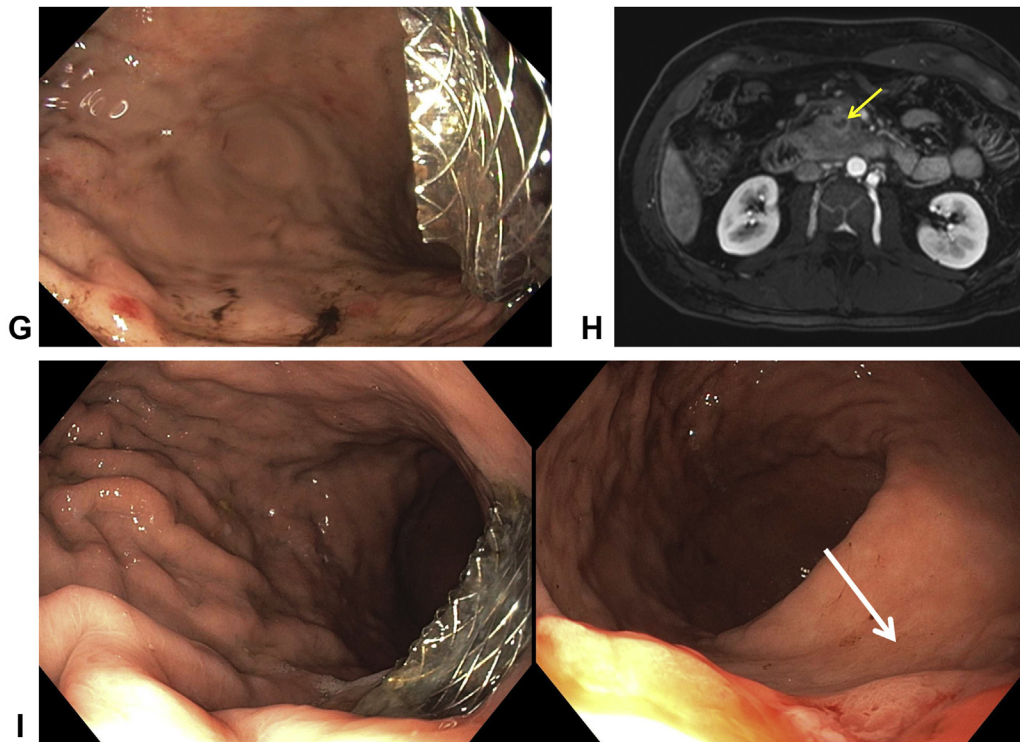


Figure 1. continued.

discharged on hospital day 7. At his 1-month follow-up visit, MRI showed resolution of the WON (Fig. 1H). EGD was performed to remove the LAMS without difficulty (Fig. 1I).

EUS-guided drainage of WON has become more feasible with the advent of LAMSs. However, severe adverse events, such as stent-related bleeding, can occur. All possible adverse events should be carefully discussed with patients. In this video, we highlight how severe hemorrhage related to LAMS placement was diagnosed and subsequently treated by use of a duodenoscope for hemoclip deployment (Video 1, available online at [www.VideoGIE.org](http://www.VideoGIE.org)). After the procedure, it is advisable to observe these patients in the hospital.

#### DISCLOSURE

*All authors disclosed no financial relationships relevant to this publication.*

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