



Transluminal drainage with a cautery-assisted 20-mm lumen-apposing metal stent

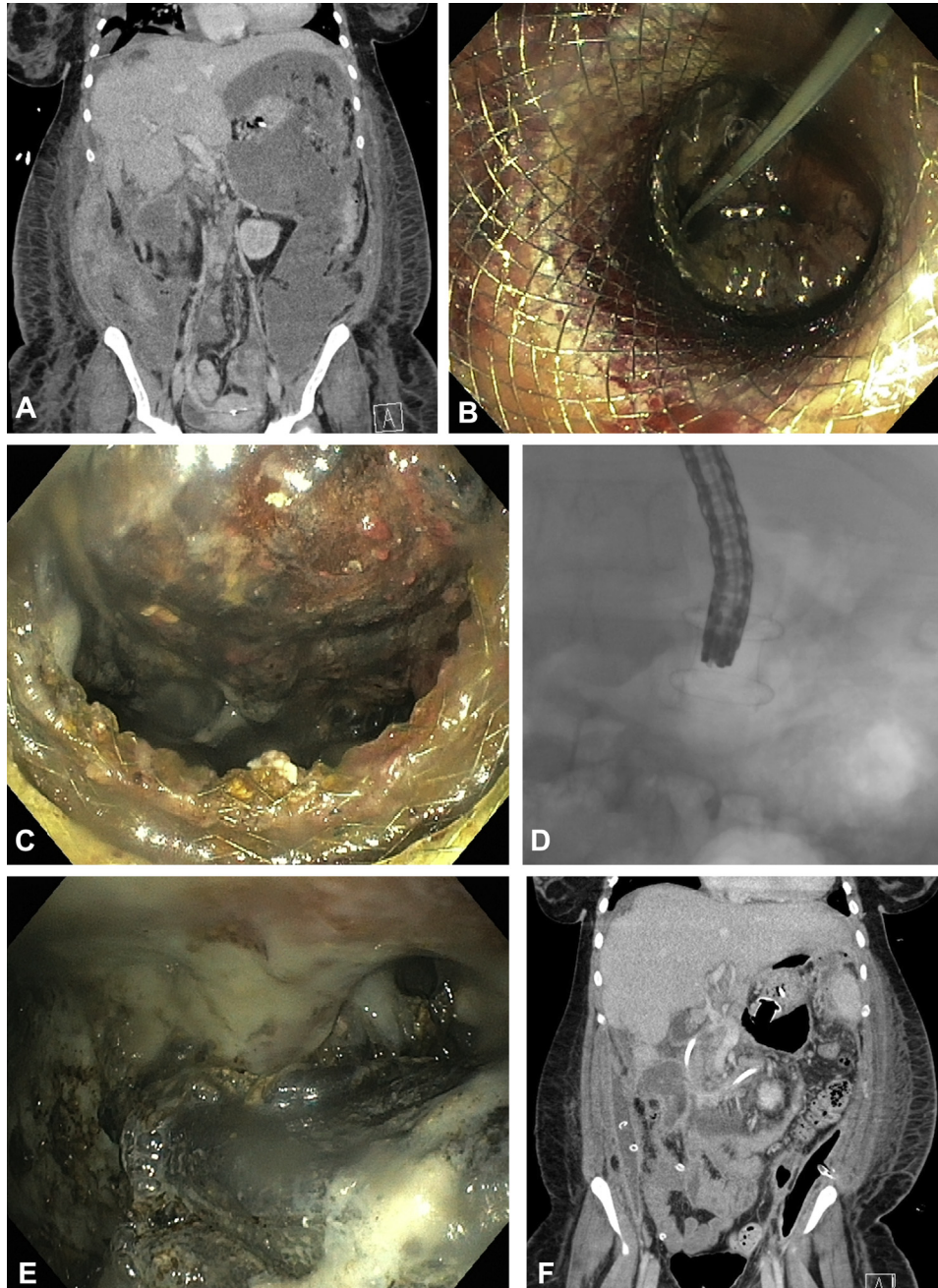


Figure 1. **A**, Contrast-enhanced abdominal CT image showing a mature, large, left-sided collection. **B**, Fully deployed 20-mm LAMS across cystgastrostomy, with visible necrotic debris in the cavity. **C**, Endoscopic appearance of a fully expanded 20-mm LAMS 2 weeks after deployment, with significant necrosis seen in the cavity. **D**, Fluoroscopic image of a transgastrically placed 20-mm LAMS, with a therapeutic upper endoscope passing through the stent into the necrotic cavity. **E**, Endoscopic appearance of cavity during initial necrosectomy. **F**, Follow-up contrast-enhanced abdominal CT scan showing improvement in size of left-sided collection. *LAMS*, lumen-apposing metal stent.

Written transcript of the video audio is available online at www.VideoGIE.org.

A 21-year-old woman presented with severe alcoholic necrotizing pancreatitis and was treated with maximal supportive care. Anticoagulant therapy for a superior mesenteric vein thrombosis was initiated, and ultimately she was discharged in stable condition. She was readmitted in hemorrhagic shock from retroperitoneal bleeding. Emergent laparotomy with evacuation of the hematoma and stabilization was performed. Her abdomen was left open, and a series of abdominal washouts followed. Persistent fever and tachycardia prompted CT with contrast which showed a large, maturing, left-sided collection away from the surgical site (Fig. 1A). Because of her “frozen” abdomen, surgical drainage was not feasible, and our team was asked to intervene with EUS-guided transluminal drainage, now 6 weeks from the initial insult (Video 1, available online at www.VideoGIE.org).

A safe transgastric location away from vessels and a site where the collection was adherent to the gastric wall with less than 1 cm distance was accessed with a 19-gauge needle. A guidewire was curled into the collection. A cystgastrostomy was then created using a 20- × 10-mm cautery-assisted lumen-apposing metal stent (LAMS) catheter system (Boston Scientific, Marlborough, Mass) (Fig. 1B). The larger 20-mm LAMS was chosen because of the size of the collection and the large amount of necrosis. One difference noted during deployment, compared with prior iterations, was the additional manipulation needed to ensure full deployment of the larger distal and proximal flanges. The stent was postdilated to 18 mm. A 10F × 1-cm double-pigtail plastic stent was deployed across the LAMS. Three days later, the patient’s clinical condition deteriorated, and a radiologist then placed a percutaneous drain into the left retroperitoneal collection to facilitate further drainage in a step-up fashion. Two weeks after LAMS placement, the patient underwent endoscopic necrosectomy through the 20-mm LAMS (Figs. 1C-E). The prior plastic stent had migrated through the LAMS into the collection

but was easily removed. Two 7F × 24-cm double-pigtail plastic ureteral stents (Cook, Bloomington, Ind) were deployed across the LAMS adjacent to the percutaneous drain. The hypothesis was that these stents would maintain a tract, allowing purulent fluid to wick through and around the stents and drain either through the cystgastrostomy or through the percutaneous drain. Otherwise, solid debris might be more likely to create pockets of purulence that were not being adequately drained. Endoscopic necrosectomy was performed twice more. The patient’s clinical condition improved, and repeated CT showed a decrease in the size of the collections (Fig. 1F).

The distal and proximal flanges of this 20-mm LAMS require more care to fully deploy, and plastic stents placed across the LAMS are more prone to migrating; however, the larger diameter seems to facilitate endoscopic necrosectomy. Further studies are needed to determine whether clinical outcomes are improved.

DISCLOSURE

Dr Amateau is a consultant for Merit Endoscopy, Boston Scientific, US Endoscopy, and Neurotronic and the recipient of research support from Cook Medical. All other authors disclosed no financial relationships relevant to this publication.

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<https://doi.org/10.1016/j.vgie.2018.01.011>