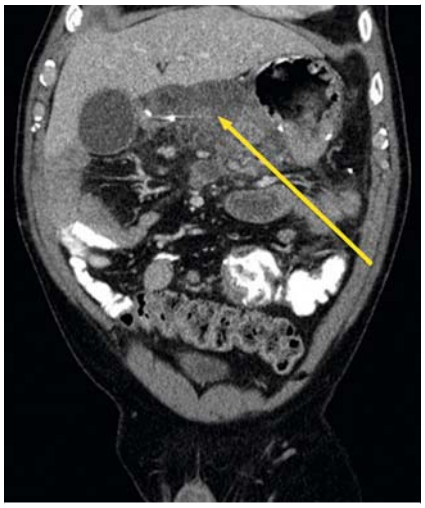
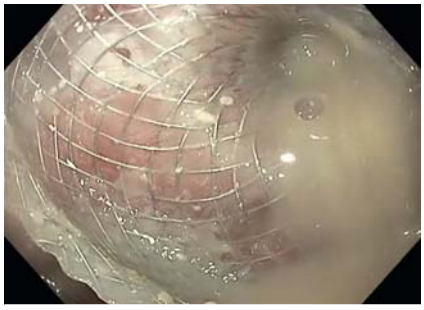
Endoscopic drainage of an infected post-surgical abdominal fluid collection using a lumen-apposing metal stent



▶ **Fig. 1** A computed tomography scan showed a 7.4 cm post-surgical abdominal fluid collection (arrow), just medial to the gastrojejunostomy anastomosis, which extended into the porta hepatis.

▶ **Fig. 4** A computed tomography scan showed resolution of the post-surgical abdominal fluid collection.

▶ **Fig. 2** Endoscopic ultrasound image of the infected post-surgical abdominal fluid collection (arrow).



▶ **Fig. 3** A lumen-apposing metal stent placed into the post-surgical abdominal fluid collection resulted in the drainage of frank pus.

Video 1 Placement of a lumen-apposing metal stent to drain an infected post-surgical abdominal fluid collection.

A 63-year-old man with a history of non-small cell lung cancer in remission following left upper lobe lobectomy was found to have a 5 cm mass along the inferior aspect of the stomach that had enlarged from a previous computed tomography (CT) scan. He underwent a Billroth II gastrectomy with resection of the mass, which was consistent with a metastasis of the primary tumor. Three weeks after abdominal surgery, he developed new-onset abdominal pain and fever to 102 degrees Fahrenheit. A CT scan showed a new 7.4 cm post-surgical abdominal fluid collection (AFC), just medial to the gastrojejunostomy anastomosis, which extended into the porta hepatis (▶ **Fig. 1**). The fluid was of higher density than simple fluid and was thought to be infected.

The interventional radiology service was consulted for drainage of the infected post-surgical AFC but the window for drainage was not optimal, as the potential drainage paths had intervening bowel or liver. Therefore, our service was consulted for endoscopic ultrasound (EUS)-guided drainage.

Under linear echoendoscopic guidance, the fluid collection was visualized adjacent to the gastrojejunostomy anastomosis, the pancreas, and the liver (▶ **Fig. 2**). A 15 × 10 mm lumen-apposing

metal stent (LAMS; AXIOS; Boston Scientific, Marlborough, Massachusetts, USA) was placed, under EUS guidance, using an electrocautery-enhanced deliver device (▶ **Video 1**). Upon placement, frank pus was seen flowing from the stent (▶ **Fig. 3**). Within 24 hours, the patient's fever and abdominal pain had resolved. A repeat CT scan 4 weeks later showed the collection had resolved (▶ **Fig. 4**). The stent was removed at 5 weeks after the initial placement.

Although EUS-guided drainage of post-surgical AFCs has been described using plastic stents [1, 2], no literature exists on the use of LAMSs. This case demonstrates that the use of EUS-guided LAMS placement can be successful to drain these collections.

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Competing interests

None

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Bibliography
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