Endoscopic ultrasound-guided transesophageal drainage of a mediastinal pancreatic pseudocyst using a novel lumen-apposing metal stent

There have been a few previous reports of transesophageal endoscopic ultrasound (EUS)-guided drainage of pancreatic fluid collections (PFC). In these reports the drainage modality has been a single aspiration or deployment of a plastic stent [1–4]. We report a patient who underwent transesophageal EUS-guided drainage of a mediastinal PFC using a novel lumen-apposing metal stent.

A 37-year-old man with a history of right-sided pneumothorax and four episodes of acute pancreatitis was referred for drainage of a PFC. He was experiencing abdominal pain and cysts of increasing size had been seen on his imaging procedures. Computed tomography (CT) scanning revealed an 80×50-mm PFC, which had herniated into the mediastinum adjacent to the lower esophagus.

The PFC was accessed from the lower esophagus using a linear echoendoscope and a novel access device (NAVIX; Xlumena Inc., Mountain View, California, USA) that enables dilation of a tract up to 10mm and placement of a guide wire. Once the cystoesophagostomy had been created, a fully covered metal stent with bilateral anchor flanges that can appose nonadherent lumens (AXIOS, 10×10mm; Xlumena) was placed across the tract (Fig. 1, Fig. 2 and Video 1) and 900 mL of fluid was aspirated. An immediate chest radiograph revealed a tension pneumothorax. Computed tomography (CT) scan after 7 days showing the AXIOS stent (arrowhead) still in place with significant resolution of the lesion (arrow).

Follow-up computed tomography (CT) scan after 7 days showing the AXIOS stent (arrowhead) still in place with significant resolution of the lesion (arrow).

Follow-up endoscopic ultrasound (EUS) image 6 weeks later showing complete resolution of the lesion.

Follow-up endoscopic ultrasound (EUS) image 6 weeks later showing complete resolution of the lesion.

Follow-up endoscopic ultrasound (EUS) image 6 weeks later showing complete resolution of the lesion.
mothorax on the right side, which re-
quired intercostal drainage. The thoracic
surgeon who performed the drainage pro-
duction felt that this was a complication of
the orotracheal positive pressure.
By day 7, the patient reported resolution
of his abdominal pain and a repeat CT
scan revealed a marked reduction in the
size of the PFC (Fig. 3). The AXIOS stent
was removed (Fig. 4) and the patient
was discharged with marked improve-
ment in the pneumothorax. Follow-up
imaging after 6 weeks showed complete
resolution of the lesion by both EUS and
CT scanning (Fig. 5). The patient re-
 mains asymptomatic 4 months later.
EUS-guided transesophageal drainage of
PFCs has become an alternative to surgery
or percutaneous drainage [1–4]. We de-
scribe the first case of transesophageal
EUS-guided drainage of a PFC using a
novel lumen-apposing metal stent. The
procedure was technically successful and
led to complete resolution of the lesion,
although a pneumothorax occurred as an
immediate complication.

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Competing interests: None

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References
1 Trevino J, Christein J, Varadarajulu S. EUS-
guided transesophageal drainage of peri-
pancreatic fluid collections. Gastrointest
Endosc 2009; 70: 793 – 797
2 Saftouia A, Cuirea T, Dumitrescu D et al. En-
doscopic ultrasound-guided transesopha-
geal drainage of a mediastinal pancreatic
pseudocyst. Endoscopy 2006; 38: 538 – 539
3 Baron TH, Wiersema MJ. EUS-guided trans-
esophageal pancreatic pseudocyst drainage.
Gastrointest Endosc 2000; 52: 545 – 549
pancreatic pseudocyst: a case report and re-
view of the literature. Med Gen Med 2007;
9: 8 – 13

Bibliography
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Video 1
Transesophageal endoscopic ultrasound
(EUS)-guided mediastinal pseudocyst drainage
using a lumen-apposing metal AXIOS stent.