

Using the endoscopic overstitching device and fully covered esophageal stents for closure of a gastropleural fistula and repair of a deformed gastric sleeve

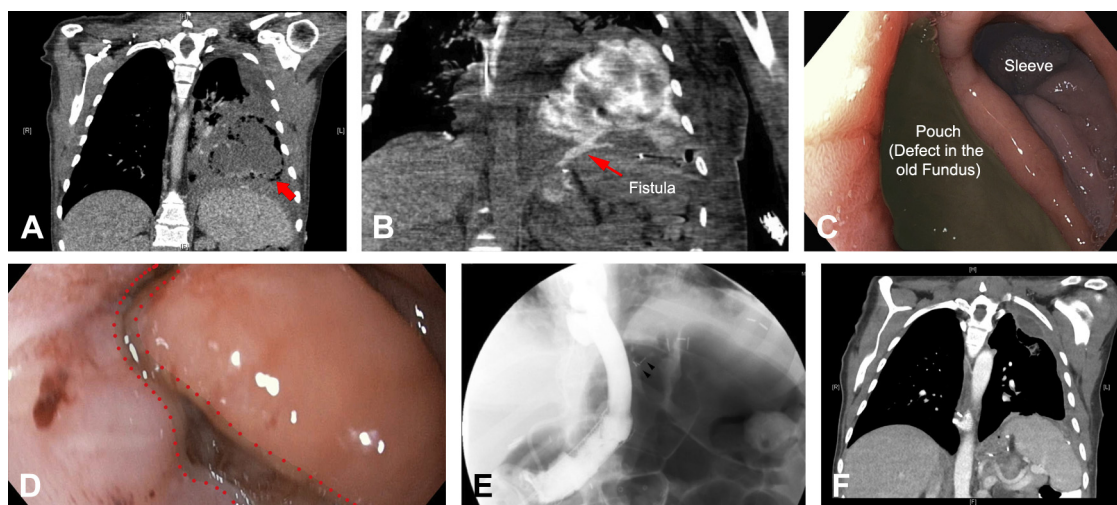


Figure 1. **A**, Coronal cut of a CT scan without contrast medium revealing an 8-cm abscess in the left lung (*arrow*). **B**, Coronal cut of a CT scan with contrast medium revealing a leak from a gastropleural fistula into the chest cavity (*arrow*). **C**, Endoscopic view showing the expanded remnant gastric pouch (*green highlight*) and the gastric sleeve (*red highlight*) separated by a sharp angulation. The gastric pouch appears enlarged secondary to the flow of food and gastric juice caused by the angulation. **D**, Endoscopic view of the reduced and sutured gastric pouch (*highlighted*). **E**, Follow-up upper GI barium study revealing adequate closure of the fistula and the gastric pouch. Overstitch endoscopic sutures (*arrowheads*) were used, and 2 fully covered stents overlapping at the site of the previous leak were placed. **F**, Coronal cut of a CT scan of the chest 6 weeks after the procedure showing complete resolution of the left lung abscess.

A 54-year-old woman with a surgical history notable for a sleeve gastrectomy with duodenal switch performed 11 years earlier, came to the emergency department in septic shock requiring admission to the intensive care unit and pressure support. Her blood cultures were positive for gram positive and negative bacteria. Evaluation of her condition, including a CT scan of the chest and abdomen, revealed a large pleural abscess (Fig. 1A) communicating with the stomach through a gastropleural fistula (Fig. 1B). Despite intravenous antibiotics and chest tube placement for abscess drainage performed by the interventional radiology service, the patient did not improve and remained intubated, requiring support with vasopressor agents, and thus necessitated an endoscopic evaluation. EGD revealed an abnormal angulation past

the gastroesophageal junction (GEJ) toward the remnant stomach of the gastric sleeve (Fig. 1C). This obstructing angulation created a dilated pouch that favored the accumulation of food and secretions in the pouch, which, through pressure, eroded in and led to the formation of a fistula tract communicating with the left pleura. After performing an endoscopy, we elected to close the fistula, suture the pouch (Fig. 1D), and correct the angle at the GEJ to prevent recurrence and promote healing, using the endoscopic suturing system (Video 1, available online at www.VideoGIE.org). This closure and pouch reduction was followed by placement of fully covered esophageal stents to correct the angulation after the EGJ and to redirect the food into the sleeve (Fig. 1E). The patient's condition significantly improved.

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

The stents were removed after 6 weeks, and CT of the chest showed resolution of the abscess (Fig. 1F). A repeated EGD after 6 months revealed resolution of the fistula. The patient did not require any additional surgical procedures. She remains asymptomatic to date.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

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