

Introduction

Esophageal perforation morbidity and mortality rate are as high as up to 60% with delays in treatment. The OverStitch™ Endoscopic Suturing System is a novel technique which was efficacious in treating an esophageal perforation in our patient.

Case Description

- A 91-year-old woman with history of hypertension was transferred to our hospital with a retropharyngeal and mediastinum fluid collection concerning for esophageal perforation.
- The patient presented with shortness of breath and cough and was found to have right-sided pleural effusion. After chest tube placement, patient complained of dysphagia and reported aspiration.
- CT chest showed a retropharyngeal abscess which was suspicious for esophageal perforation.
- Surgery performed an immediate left neck incision and drainage and placed a gastrostomy tube.
- However, a follow-up esophagram showed persistent leakage.
- EGD revealed a 1cm perforation at the cricopharyngeal plane just above the upper esophageal sphincter.
- An OESS was performed, and the patient was kept n.p.o. with gastrostomy tube feeding.
- At a 17 day follow up, a repeat esophagram showed no evidence of contrast extravasation, and the patient was doing well.

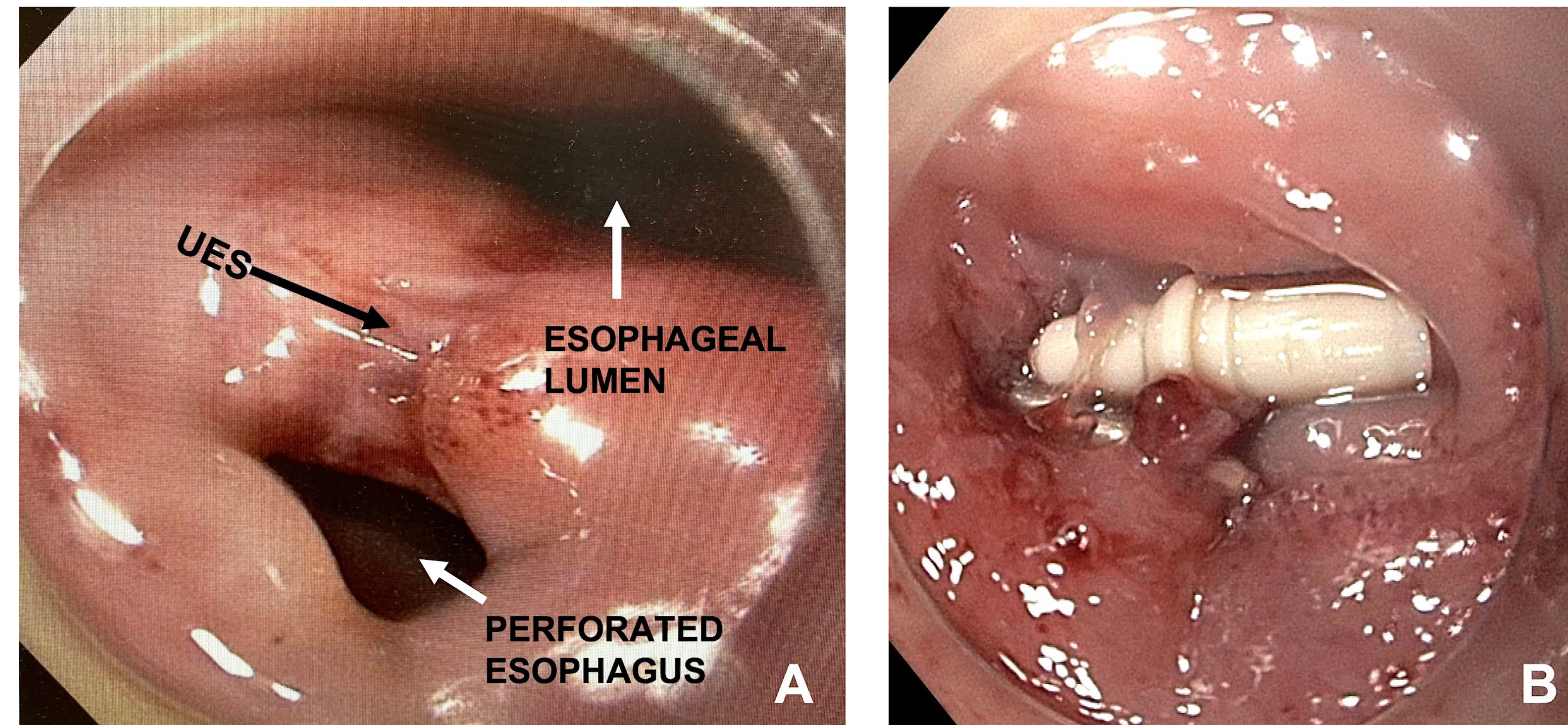


Figure 1 (A) EGD shows an esophageal perforation at the upper esophageal sphincter (UES) level. (B) EGD shows an OverStitch suture in place.

Discussion

- Esophageal perforation is a life-threatening condition and is a surgical emergency.
- Mortality rate can approach 60% with delays in treatment and can be reduced to 10-25% with immediate treatment.
- Surgery remains the mainstay of the treatment.
- The use of Overstitch is limited to only case reports or case studies.
- Endoscopic treatment include clips, stent, and suturing. The success of the repair depend on the extent of the nonviable tissue. In our patient, she has persistent leakage after drainage and underwent OverStitch™ closure.
- Overstitch is a minimally invasive endoscopic procedure that mimic a true full-thickness surgical closure.
- Endoscopic suturing may be superior to endoclips in the management of perforations, due to the ability of the Overstitch device to achieve full-thickness suturing and create an airtight closure.

Conclusion

Esophageal perforation is a life-threatening condition and is a surgical emergency. This case demonstrates the utility and efficacy of endoscopic suturing using OverStitch™ device to treat complicated esophageal perforation.

References:

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3. Rogalski, P., et al., *Endoscopic management of gastrointestinal perforations, leaks and fistulas*. World J Gastroenterol, 2015. 21(37): p. 10542-52.
4. Ge, P.S. and C.C. Thompson, *The Use of the Overstitch to Close Perforations and Fistulas*. Gastrointest Endosc Clin N Am, 2020. 30(1): p. 147-161.