Thieme

# Knife-assisted incision for restoring esophageal lumen after surgical exclusion

OPEN ACCESS

Surgical repair with esophageal exclusion is a life-saving surgery for patients with mediastinitis following mid-esophageal perforation [1]. This is followed by either spontaneous recanalization of the organ or subsequent surgery to restore lumen patency [2].

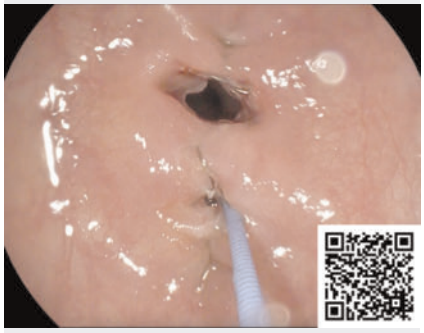
We present the case of a patient who underwent endoscopic restoration of the esophageal lumen after unsuccessful spontaneous recanalization following esophageal exclusion.

A 41-year-old man, with known achalasia, underwent pneumatic endoscopic dilation at another center, resulting in a 6 cm longitudinal laceration of the lateral esophageal wall. The patient developed mediastinitis and was treated by surgical repair of the laceration and esophageal exclusion with proximal staple line division.

At 4 months post-surgery, the patient continued to experience dysphagia with a liquid diet. Postoperative esophagograms revealed poor contrast passage across the staple lines. The patient was referred to our unit for endoscopic recanalization (▶ **Video 1**). Endoscopically, we found a moderate stenosis (caliber 6 mm) at the staple line site (▶ **Fig. 1**).

Initially, we placed a guidewire in the stapled lumen and performed dilation with Savary–Gilliard bougies up to 9 mm. Then, we extensively incised the fibrosis between the residual lumen and the stapled lumen using an L-type dissector (Finemedix, Daegu, Korea) (▶ **Fig. 2**). Finally protruding staple sutures were removed by cold forceps.

As a result, a well-patent esophageal lumen, traversable with a standard gastroscope (caliber 9.8 mm), was achieved (▶ **Fig. 3**). No leaks were detected on the intraprocedural esophagogram.



**Video 1** Endoscopic esophageal lumen recanalization after surgical exclusion.

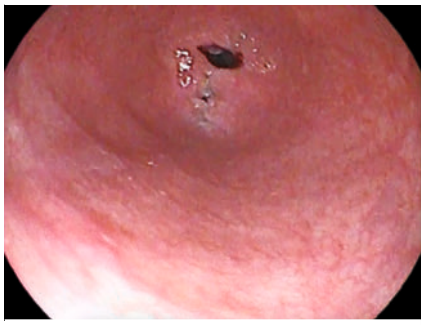
On the first postoperative day, an X-ray with contrast medium showed smooth contrast passage throughout the esophagus. The patient was discharged after resuming a soft diet. At the 3-month follow-up, he reported having no dysphagia.

To the best of our knowledge, this is the first report of endoscopic recanalization after surgical esophageal exclusion and describes a potential treatment option for similar complex cases.

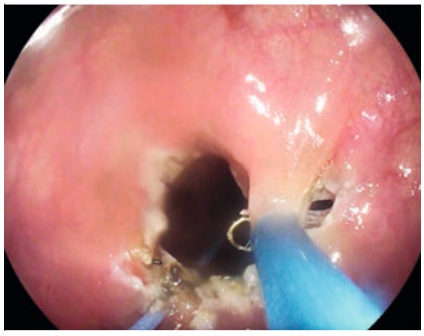
Endoscopy_UCTN_Code_TTT_1AO_2AH

## Conflict of Interest

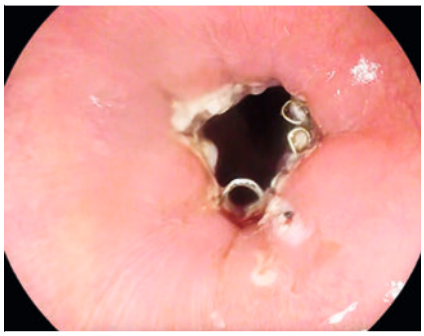
S. Danese has served as a speaker, consultant, and advisory board member for Schering-Plough, AbbVie, Actelion, Alfa Wassermann, AstraZeneca, Cellerix, Cosmo Pharmaceuticals, Ferring, Genentech, Grunenthal, Johnson and Johnson, Millenium Takeda, MSD, Nikkiso Europe GmbH, Novo Nordisk, Nycomed, Pfizer, Pharmacosmos, UCB Pharma, and Vifor. F. Azzolini, E. Fasulo, F.V. Mandarino, and A. Barchi declare that they have no conflict of interest.



▶ **Fig. 1** Initial appearance of the esophageal lumen.



▶ **Fig. 2** Incision of the fibrosis with L-type dissector (Finemedix, Daegu, Korea) to separate staples.



▶ **Fig. 3** Final view: the staple line site was traversed by a standard gastroscope.

## The authors

**Francesco Azzolini[1], Ernesto Fasulo[1], Francesco Vito Mandarino[1,2], Alberto Barchi[1], Silvio Danese[1,2]**

1 Department of Gastroenterology and Gastrointestinal Endoscopy, IRCCS Ospedale San Raffaele, Milan, Italy

2 Vita-Salute San Raffaele University, Milan, Italy

## Corresponding author

**Francesco Vito Mandarino, MD**
Department of Gastroenterology and Gastrointestinal Endoscopy, IRCCS Ospedale San Raffaele, Via Olgettina 60, 20136 Milan, Italy
mandarino.francesco@hsr.it

## References

[1] Lampridis S, Mitsos S, Hayward M et al. The insidious presentation and challenging management of esophageal perforation following diagnostic and therapeutic interventions. J Thorac Dis 2020; 12: 2724–2734. doi:10.21037/jtd-19-4096

[2] Paramesh V, Rumisek JD, Chang FC. Spontaneous recanalization of the esophagus after exclusion using nonabsorbable staples. Ann Thorac Surg 1995; 59: 1214–1215. doi:10.1016/0003-4975(94)00965-a

## Bibliography

Endoscopy 2024; 56: E276–E277
**DOI** 10.1055/a-2239-3237
**ISSN** 0013-726X

Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany