

## Bidirectional recanalization of a complete postradiation stricture of the hypopharynx and esophagus.



► **Fig. 1** Retrograde view of the atretic stricture.

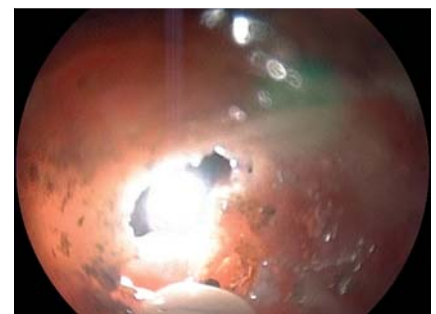
A 65-year-old patient was referred for endoscopic management of a complete radiation-induced stricture, 5 cm in length, of the hypopharynx and esophagus (► **Fig. 1**, ► **Video 1**). He had a history of curative chemoradiation therapy for T2N1 squamous cell carcinoma of the larynx. His nutrition was exclusively maintained through a percutaneous gastrostomy. Recanalization of the esophagus was considered after a multidisciplinary discussion, as previously described [1–3]. The percutaneous gastrostomy site was reinforced by providing endoscopic gastropexy to the abdominal wall with four sutures using a double-needle device (Freka Pexact; Fresenius Kabi Ltd, Runcorn, UK). The gastrostomy site was bougie-dilated to 14 mm and a 9-mm endoscope was inserted. A mixture of hydroxyethyl starch and indigo carmine was injected and the fibrotic tissue was dissected with a 1.5-mm Dual Knife (Olympus, Tokyo, Japan) (► **Fig. 2**). Step by step a new lumen was created up to the level of the hypopharynx. At this level, a perorally introduced gastroscope was able to discern transillumination and an endoscopic rendezvous was achieved (► **Fig. 3**). At the end of the procedure, the proximal orifice was sufficiently dissected up to 10 mm (► **Fig. 4**, ► **Fig. 5**). The patient was admitted for 48 hours for observa-



► **Video 1** Video presentation of the endoscopic management of the stricture.



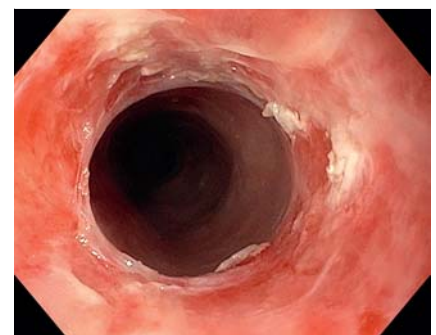
► **Fig. 2** Retrograde view. Dissection of the stricture.



► **Fig. 3** Retrograde view. Transillumination.



► **Fig. 4** Antegrade view. Enlargement of the stricture to fit a standard endoscope.



► **Fig. 5** Inspection of the stricture 3 days later.

tion and discharged uneventfully. No stent was placed due to the risk of intolerance and/or creation of a fistula [3].

At 5 months of follow-up, the patient underwent serial endoscopic balloon dilations up to 20 mm to keep the tunneled stricture patent. In conclusion, complete postradiation strictures of the esophagus and hypopharynx could be managed by bidirectional dissection of the fibrotic tissue. Although technically challenging, this procedure may spare the need for more invasive and morbid surgery. The addition of gastropexy prior to the main procedure and the bidirectional approach of recanalization are the two elements that differentiate our approach from previously published case reports.

Endoscopy\_UCTN\_Code\_CCL\_1AB\_2AC\_3AD

### Competing interests

The authors declare that they have no conflict of interest.

### The authors

**Georgios Mavrogenis<sup>1</sup>**, **Fateh Bazerbachi<sup>2</sup>**, **Konstantinos Markoglou<sup>1</sup>**, **Sandro Porceddu<sup>3</sup>**, **Sunil Gupta<sup>4</sup>**, **Luke Hourigan<sup>4</sup>**

- 1 Unit of Hybrid Interventional Endoscopy, Department of Gastroenterology, Mediterraneo Hospital, Athens, Greece
- 2 Department of Gastroenterology, CentraCare, St. Cloud, Minnesota, USA
- 3 Department of Oncology, Brisbane's Princess Alexandra Hospital, Brisbane, Australia
- 4 Department of Gastroenterology, Brisbane's Princess Alexandra Hospital, Brisbane, Australia

### Corresponding author

**Georgios Mavrogenis, MD**

Unit of Hybrid Interventional Endoscopy,  
Department of Gastroenterology,  
Mediterraneo Hospital, Ilias 12, Glyfada  
16675 Athens, Greece  
mavrogenis@gmail.com

### References

- [1] Wagh MS, Yang D, Chavalitthamrong D et al. Per-oral endoscopic tunneling for restoration of the esophagus (POETRE). *Gastrointest Endosc* 2014; 80: 330
- [2] Mavrogenis G, Moreels TG, Chevaux JB et al. Recanalization of a complete postradiation esophageal obstruction with endoscopic submucosal dissection techniques. *Gastrointest Endosc* 2015; 81: 1476

- [3] Félix C, Barreiro P, Rodrigues Azevedo J et al. Per-oral endoscopic tunneling for restoration of the esophagus (POETRE) in the management of a complete esophageal obstruction. *Endosc Int Open* 2021; 9: E1084–E1085

### Bibliography

Endoscopy 2022; 54: E709–E710

**DOI** 10.1055/a-1753-9450

**ISSN** 0013-726X

**published online** 28.2.2022

© 2022. Thieme. All rights reserved.

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

### ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



*Endoscopy E-Videos* is an open access online section, reporting on interesting cases

and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

This section has its own submission website at

<https://mc.manuscriptcentral.com/e-videos>