Clip-with-line traction suture method with adaptation of the mucosal flap in a large transmural defect after submucosal tunneling endoscopic resection of a submucosal tumor at the esophagogastric junction

Submucosal tunneling endoscopic resection (STER) [1] is a demanding technique that can potentially lead to serious complications [2, 3]. A 51-year-old patient with solid food dysphagia underwent an esophagastroduodenoscopy, which showed a subepithelial mass just below the esophagogastric junction (EGJ). Endoscopic ultrasound confirmed a well-demarcated 30×24 mm subepithelial mass attached to the muscularis propria, predominantly hypoechogenic but with some hyperechogenic foci.

STER was performed using a Hybrid-Knife I-Type (Endocut-Q, Setting 2-3-3, Vio 300D; ERBE Elektromedizin, Tübingen, Germany) under low-flow carbon dioxide insufflation (Video 1). A 2-cm longitudinal mucosal access was created in the esophagus, 4 cm proximal to the EGJ, and a submucosal tunnel was created until the submucosal lesion was found in the deep posterior muscularis propria layer (Fig. 1a, b). To avoid tumor capsule damage, the muscular layer had to be opened. Owing to the difficult position of the lesion, the scope had to be at maximum retroflexion for deep muscular layer preparation. However, a large mucosal tear was observed, caused by the traction exerted by the scope during the procedure, thus causing a large transmural perforation (Fig. 1c).

After tumor removal (Fig. 2a), a 16-mm hemostatic clip (Lockado-Clip, Microtec Europe, Dusseldorf, Germany) with medical floss was placed in the proximal margin of the mucosal flap. The floss was pulled to lift the mucosal flap upwards to cover the defect. Subsequently, the tear was closed by attaching the side margins of the flap to the surrounding mucosa using 20-mm hemostatic clips (Lockado-Clip, Microtec Europe, Dusseldorf, Germany) (Fig. 2b, c).

Broad-spectrum antibiotic therapy was given. The following day, an esophag-
gram confirmed no leakage and a liquid diet was started. After follow-up endoscopy on Day 3, the patient received a semi-liquid diet and was then discharged on a regular diet. There were no complications during the follow-up. Histology showed a leiomyoma. The clip-with-line traction suture method was previously described to align mucosal margins to allow easier defect closure after submucosal dissection [4]. In the current case, it was used to close the mucosal flap over the tear.

Endoscopy_UCTN_Code_CPL_1AH_2AJ

Competing interests

The authors declare that they have no conflict of interest.

The authors

Annalisa Cappello1, Sofia Xavier2, Horst Neuhaus1, Torsten Beyna3, Christian Gerges3
1 AUSL Bologna, Bologna, Italy
2 Hospital Senhora da Oliveira, Guimarães, Portugal
3 Evangelisches Krankenhaus, Düsseldorf, Germany

Corresponding author

Annalisa Cappello, MD
AUSL Bologna, Department of Gastroenterology and Interventional Endoscopy, Largo Nigrisoli 2, 40133 Bologna (BO), Italy
annalisacappello@yahoo.it

References


Bibliography

Endoscopy
DOI 10.1055/a-1731-7268
ISSN 0013-726X
published online 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