Subepithelial tunneling endoscopic resection is an accepted minimally invasive therapy for esophageal subepithelial tumors arising from the muscularis propria layer [1]. Subepithelial tunneling endoscopic resection is highly successful for subepithelial tumors <4 cm. Larger lesions pose technical challenges for this procedure and for specimen delivery with resultant inferior outcomes [2]. Several techniques have been described to overcome this problem, such as double-opening subepithelial tunneling endoscopic resection, intracorporeal morcellation, or a thoracoscopy-assisted approach [2–5]. This video demonstrates subepithelial tunneling endoscopic resection for a giant esophageal leiomyoma with intratunnel morcellation.

A 37-year-old man presented with dysphagia. Computed tomography (CT) scan, esophagogastroduodenoscopy (EGD), and endoscopic ultrasound (EUS)-guided fine needle biopsy confirmed a muscularis propria layer leiomyoma at 22 cm measuring 6.5 × 2.5 × 4 cm (▶ Fig.1, ▶ Fig.2). Subepithelial tunneling endoscopic resection was performed (▶ Video 1). After submucosal elevation, a mucosal incision was made at 17 cm using a triangular tip TT-J knife (Olympus, Tokyo, Japan) and Endocut current (Erbe Vio 200D; Erbe, Tübingen, Germany). The subepithelial tumor was enucleated by generous lateral and forward dissection using forced coagulation current (Erbe). Hemostasis was achieved using a Coagrasper (Olympus). Care was taken to maintain an intact capsule around the leiomyoma. The lesion was too bulky to be delivered en bloc from the tunnel. Therefore, intratunnel morcellation was performed and morcellated tumor fragments were retrieved from the tunnel and esophagus (▶ Fig.3). The mucosal incision was closed using endoclips. The procedure time was 210 min. The patient was maintained nil orally for 48 hours followed by an oral diet and was discharged on day 6. No adverse events were recorded (▶ Fig.4). Final histopathology confirmed leiomyoma. Follow-up EGD at 4 weeks revealed a healthy scar (▶ Fig.5). The patient reported dysphagia resolution.

This video highlights the importance of intratunnel morcellation to facilitate specimen delivery after subepithelial tunneling endoscopic resection. It also highlights the importance of a preprocedural EUS-guided fine needle biopsy to confirm the tumor is benign, because only then could we perform morcellation. In conclusion, subepithelial tunneling endoscopic resection with intratunnel morcellation is a safe and effective technique for resection of a giant esophageal leiomyoma.
Endoscopy_UCTN_Code_TTT_1AO_2AN

Competing interests

The authors declare that they have no conflict of interest.

The authors

Ashish Gandhi1, Siddharth Dharamsi1, Harsh Bapaye2, Amol Bapaye1

1 Shivanand Desai Center for Digestive Disorders, Deenanath Mangeshkar Hospital and Research Center, Pune, India
2 Byramjee Jeejeebhoy Medical College, Pune, India

Corresponding author

Amol Bapaye, MD
Shivanand Desai Center for Digestive Disorders, Deenanath Mangeshkar Hospital and Research Center, Erandwane, Pune 411004, India
amolbapaye@gmail.com

References


Bibliography

Endoscopy
DOI 10.1055/a-1529-5283
ISSN 0013-726X
published online 2021
© 2021. 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 a free 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.
This section has its own submission website at https://mc.manuscriptcentral.com/e-videos

▶ Fig. 3 External view of the final resected specimen showing the morcellated tumor fragments.

▶ Fig. 4 Post-operative contrast swallow demonstrating no leak of contrast from the esophageal lumen.

▶ Fig. 5 Endoscopic view of healed site scar on follow-up endoscopy at 4 weeks.