A 42-year-old woman was diagnosed with a submucosal lesion at the lower esophagus extending into the fundus (Fig. 1). Endosonography showed the tumor arising from the second layer (i.e. muscularis mucosa). Submucosal tunneling endoscopic resection (STER) was performed using a therapeutic channel (3.7 mm) endoscope (GIF-1TH190; Olympus, Tokyo, Japan) (Video 1). We used a new multimodality knife for the entire procedure (Speedboat-RS2; Creo Medical Ltd., Chepstow, UK) (Fig. 2). This device consists of curved bipolar electrodes on the sides for cutting using radiofrequency energy (400 kHz and 35 W) and microwave for coagulation (frequency 5.8 GHz, power setting 10 W). In brief, the STER procedure involved: a) submucosal injection at about 1 cm proximal to the submucosal tumor (Fig. 3 a); b) mucosal incision of about 2 cm in length (Fig. 3 b); c) submucosal tunneling and dissection of the tumor from surrounding tissue (Fig. 3 c); d) retrieval of the tumor using a polypectomy snare (Fig. 3 d); d) closure of the incision using multiple endoclips.

The tunneling technique is widely utilized for the resection of submucosal tumors in the upper gastrointestinal tract. Advances in devices and techniques have improved the outcomes of endoscopic resection in these lesions [1]. This case demonstrates the use of a new multimodality device for endoscopic dissection of a large submucosal tumor. The novel bipolar cutting device has an integrated injection needle so that the entire procedure can be accomplished without device exchange. The presence of a protective hull (Fig. 2) safeguards against inadvertent damage to the muscle, which is a potential concern when using monopolar electrosurgical knives [2]. A recent report...
described the use of this device for removal of a large colonic polyp by the endoscopic submucosal tunneling dissection technique, with no muscle damage and only minimal charring [3].

Competing interests

The authors declare that they have no conflict of interest.

The authors

Zaheer Nabi¹, Mohan Ramchandani¹, Radhika Chavan¹, Santosh Darisetty¹, Rama Kotla¹, D. Nageshwar Reddy¹
¹ Gastroenterology, Asian Institute of Gastroenterology, Hyderabad, India
² Anesthesiology, Asian Institute of Gastroenterology, Hyderabad, India

Corresponding author

Zaheer Nabi, MD
Asian Institute of Gastroenterology, 6-3-661, Somajiguda, Hyderabad – 500 082, India
Fax: +91-40-23324255
zaheernabi1978@gmail.com

References


Bibliography

DOI https://doi.org/10.1055/a-1089-7680
Published online: 29.1.2020
Endoscopy 2020; 52: E257–E258
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

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

Video 1

Endoscopic resection of a large esophageal submucosal lesion using a novel, bipolar, multimodality device.