

Double-band ligation-assisted endoscopic submucosal resection for type 1 gastric neuroendocrine tumor with type A gastritis

A 72-year-old woman was diagnosed with a 10-mm type 1 gastric neuroendocrine tumor (NET) in the gastric body, associated with type A gastritis and diabetes mellitus (► **Fig. 1 a**). Endoscopic ultrasonography indicated that the lesion was confined to the submucosa. In order to resect the lesion completely with clean margins, we applied a double-band ligation-assisted endoscopic submucosal resection (dL-ESMR) technique.

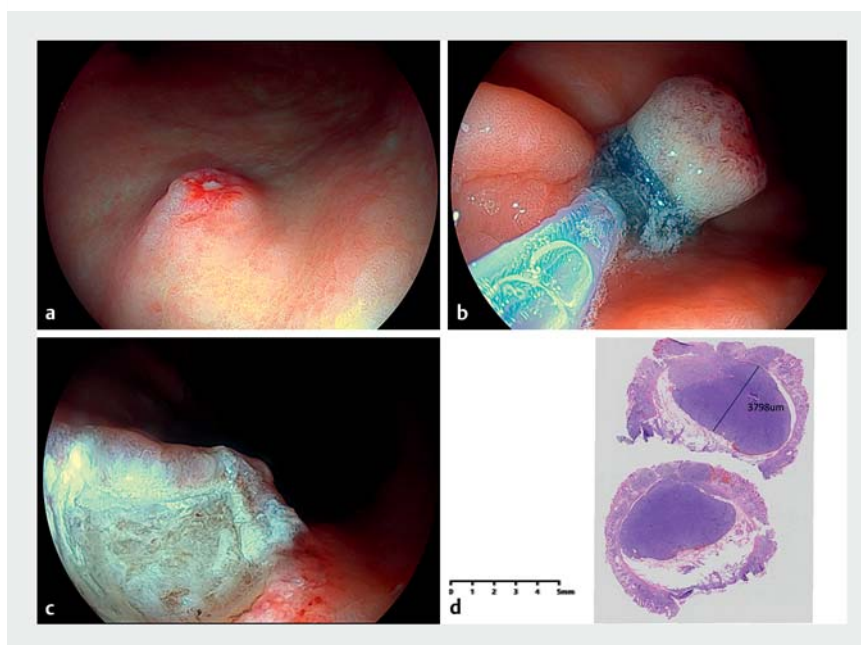
The NET was sucked into the ligator to ensure that the entire submucosal lesion was completely contained. Two bands were then released successively below the lesion. Next, a snare was deployed under the second band for resection with Endocut Q (Effect 3, Cut duration 2, Cut interval 4) (► **Fig. 1 b**). The wound was clean, without bleeding or perforation (► **Fig. 1 c**). The whole process took about 10 minutes. Histological examination showed a grade 2 NET with submucosal invasion depth of 3798 μm . Both vertical and horizontal margins were negative (► **Fig. 1 d**).

Bas-Cutrina et al. reported that endoscopic band ligation without resection was a safe and effective option for management of small subepithelial tumors [1]. However, this approach did not allow complete pathology assessment. For larger gastric NETs, dL-ESMR can avoid damage to the muscularis propria while ensuring complete resection. Therefore, dL-ESMR may be successfully applied to treat larger gastric NETs, most of which involve the submucosa, as in the current case (► **Video 1**).

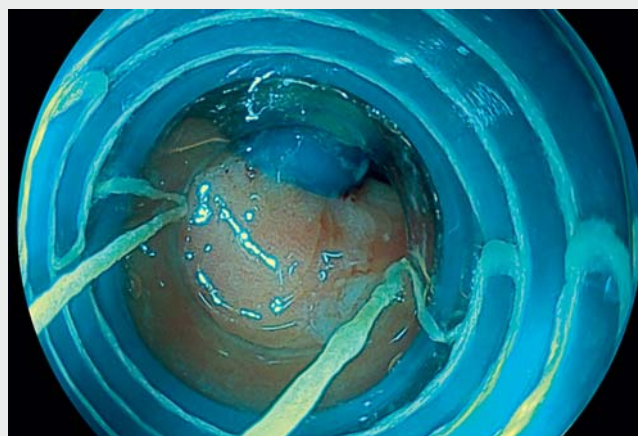
Endoscopy_UCTN_Code_TTT_1AO_2AG

Competing interests

The authors declare that they have no conflict of interest.



► **Fig. 1** The process of double-band ligation-assisted endoscopic submucosal resection. **a** A 10-mm type 1 gastric neuroendocrine tumor was located in the gastric body. **b** A snare was deployed under the second band for resection after releasing two bands successively. **c** No residual lesion, bleeding, or perforation was observed in the wound. **d** The histological appearance of the resected specimen showed a grade 2 neuroendocrine tumor with submucosal invasion depth of 3798 μm , while vertical and horizontal margins were negative.



► **Video 1** Double-band ligation-assisted endoscopic submucosal resection for type 1 gastric neuroendocrine tumor with type A gastritis.

The authors

Chao Deng, Suhua Wu, Feng Xu, Lin Lv, Zhihang Zhou, Song He

Department of Gastroenterology, The Second Affiliated Hospital of Chongqing Medical University, Chongqing, China

Corresponding author

Song He, MD

Department of Gastroenterology, The Second Affiliated Hospital of Chongqing Medical University, No. 76 Linjiang Road, Yuzhong District, Chongqing 400000, China
hedoctor65@cqmu.edu.cn

Reference

- [1] Bas-Cutrina F, Ballester-Clau R, Gonzalez-Huix F et al. Gastric perforation during ligation-assisted endoscopic mucosal resection of a neuroendocrine tumor: banding without resection may be a safer option. *Endoscopy* 2020; 52: E370–E371

Bibliography

Endoscopy 2022; 54: E724–E725

DOI 10.1055/a-1759-2129

ISSN 0013-726X

published online 10.3.2022

© 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>