Endoscopic submucosal dissection of a laterally spreading tumor involving a colonic diverticulum using the counter-traction technique



► Fig. 1 Nongranular laterally spreading tumor deeply invading a colonic diverticulum.



► Fig. 2 Counter-traction of the lesion with clips and rubber band.



▶ Fig. 3 The resected piece.

Endoscopic submucosal dissection (ESD) is the technique of choice for the resection of superficial colorectal lesions larger than 20 mm [1], but the procedure can be technically challenging in some





▶ Video 1 Endoscopic submucosal dissection of a laterally spreading tumor involving a colonic diverticulum using the counter-traction technique.

situations. If a lesion involves a diverticulum, there is fear of a higher risk of perforation due to the lack of muscle layer. However, ESD has recently been described as safe and effective in this particular case [2]. Use of a clip and rubber band (counter-traction technique [3]) can help to achieve a satisfying resection with higher technical comfort. This technique has been proved to be effective and safe for resection of neoplastic lesions involving the appendiceal orifice [4]. However, few data are available for lesions involving a diverticulum [5].

We report the case of a 40×30 mm nongranular laterally spreading tumor (NG-LST) deeply invading a colonic diverticulum (Type 3 LST) (**Fig.1**), which was resected with ESD using the countertraction technique (**Video 1**).

After submucosal injection around the diverticulum, complete circumferential incision and deep trimming were performed. The first clip grasping a rubber band was fixed at one side of the lesion and a second clip grasping the same rub-

ber band was fixed at the opposite colonic wall (**> Fig. 2**). This counter-traction technique allowed better exposition of the submucosae area under the diverticulum, thus strongly facilitating an en bloc resection (**> Fig. 3**). The ulcer floor of the diverticulum was closed by two clips at the end of the procedure to prevent delayed perforation [2]. The patient was discharged the following day without any adverse events. The histopathology report showed an adenoma with high grade dysplasia and a complete en bloc resection (R0).

This case report, along with others [5], describes the feasibility of ESD with counter-traction method for resection of LSTs deeply invading a diverticulum.

Endoscopy_UCTN_Code_TTT_1AQ_2A|

Competing interests

The authors declare that they have no conflict of interest.

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References

- [1] Pimentel-Nunes P, Dinis-Ribeiro M, Ponchon T et al. Endoscopic submucosal dissection: European Society of Gastrointestinal Endoscopy (ESGE) Guideline. Endoscopy 2015; 47: 829–854
- [2] Muramoto T, Ohata K, Sakai E et al. Endoscopic submucosal dissection for colorectal neoplasms in proximity or extending to a diverticulum. Surg Endosc 2020. doi:10.1007/s00464-020-07795-y
- [3] Jacques J, Charissoux A, Bordillon P et al. High proficiency of colonic endoscopic submucosal dissection in Europe thanks to countertraction strategy using a double clip and rubber band. Endosc Int Open 2019; 07: E1166–E1174
- [4] Oung B, Rivory J, Chabrun E et al. ESD with double clips and rubber band traction of neoplastic lesions developed in the appendiceal orifice is effective and safe. Endosc Int Open 2020; 08: E388–E395
- [5] Albouys J, Geyl S, Charissoux A et al. Counter-traction using clips and rubber banding for endoscopic submucosal dissection of a laterally spreading tumor involving a diverticulum in the colon. Endoscopy 2019; 51: E295–E296

Bibliography

Endoscopy 2022; 54: E34–E35

DOI 10.1055/a-1362-9196
ISSN 0013-726X
published online 23.2.2021
© 2021. Thieme. All rights reserved.
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

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