

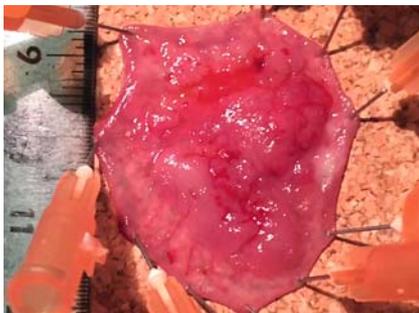
## Endoscopic submucosal dissection of a laterally spreading tumor involving a colonic diverticulum using the counter-traction technique



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

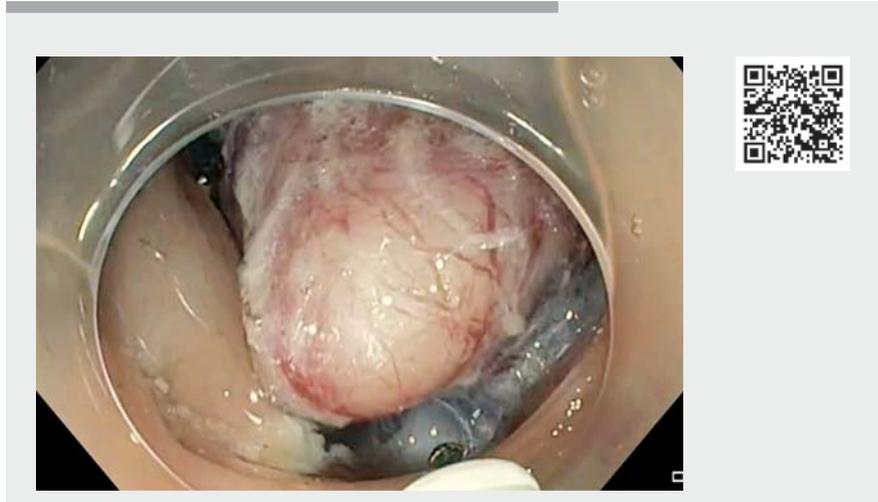


► **Fig. 2** Counter-traction of the lesion with clips and rubber band.



► **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 (NGLST) deeply invading a colonic diverticulum (Type 3 LST) (► **Fig. 1**), which was resected with ESD using the counter-traction 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.

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### Competing interests

The authors declare that they have no conflict of interest.

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