Total wall resection by full-thickness resection device post-hybrid endoscopic submucosal dissection of a laterally spreading tumor in the colon

Non-lifting lesions can occur owing to fibrosis caused by multiple biopsies, submucosal tumor involvement, and lesions resulting from incomplete resections, among others. These lesions can be successfully resected using the full-thickness resection device (FTRD) [1–5]. Here we report the case of a patient who, after undergoing endoscopic submucosal dissection, presented with lesion recurrence. In light of this, the decision was taken to perform resection with the FTRD.

A colonoscope with a conical cup was advanced to the hepatic flexure of the colon, where a flat, granular-type, laterally spreading tumor of approximately 4×6 cm, covering 40% of the perimeter and a complete haustral fold longitudinally, was identified (► **Fig. 1 a**). The margins of the lesion were clearly identified.

► **Video 1** A laterally spreading tumor in the colon is treated by hybrid endoscopic mucosal resection; recurrent adenomatous tissue is treated with a full-thickness resection device (FTRD); the final follow-up colonoscopy shows only the scar from the total wall resection with no adenomatous tissue present.

► **Fig. 1** Endoscopic views showing: **a** a flat lesion with agranular lateral extension of about 4 x 6 cm, occupying 40% of the total perimeter and an entire haustral fold; **b** endoscopic submucosal dissection (ESD) being performed; **c** scar folds from the previous ESD with residual adenomatous tissue on colonoscopy 6 months later; **d** complete wall resection of the segment that contained the residual lesion using the full-thickness resection device (FTRD); **e** evidence of a flat scar but no residual adenomatous tissue on the final follow-up colonoscopy.

Submucosal injection was performed to achieve complete elevation of the lesion. Perimeter mucotomy and subsequent endoscopic submucosal dissection (ESD) of the lesion were performed (► **Fig. 1 b**). ESD was then continued from the perimeter toward the center, achieving dissection of almost 90 % of the lesion. Because the distal edge contained a fold, which prevented adequate submucosal dissection, the decision was taken to complete excision of the lesion via snare polypectomy, subsequently fulgurating the mucous borders of the ulcer site (► **Video 1**). A colonoscopy repeated at 6 months revealed recurrence of the adenomatous tissue (► **Fig. 1 c**). Therefore, on this occasion, resection with the FTRD was decided upon. Traction was applied to the tumor fold with a foreign body clamp, and this was followed by aspiration of the tumor into the FTRD (► **Fig. 1 d**). The FTRD was then released, subsequently resulting in total wall resection of the segment containing the lesion. On a further colonoscopy, 6 months after the first follow-up colonoscopy, only the scar from the previous complete wall resection was visible (► **Fig. 1 e**).

In conclusion, use of the FTRD represents a good alternative for recurrent colonic lesions after previous endoscopic resection.

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Competing interests

The authors declare that they have no conflict of interest.

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