

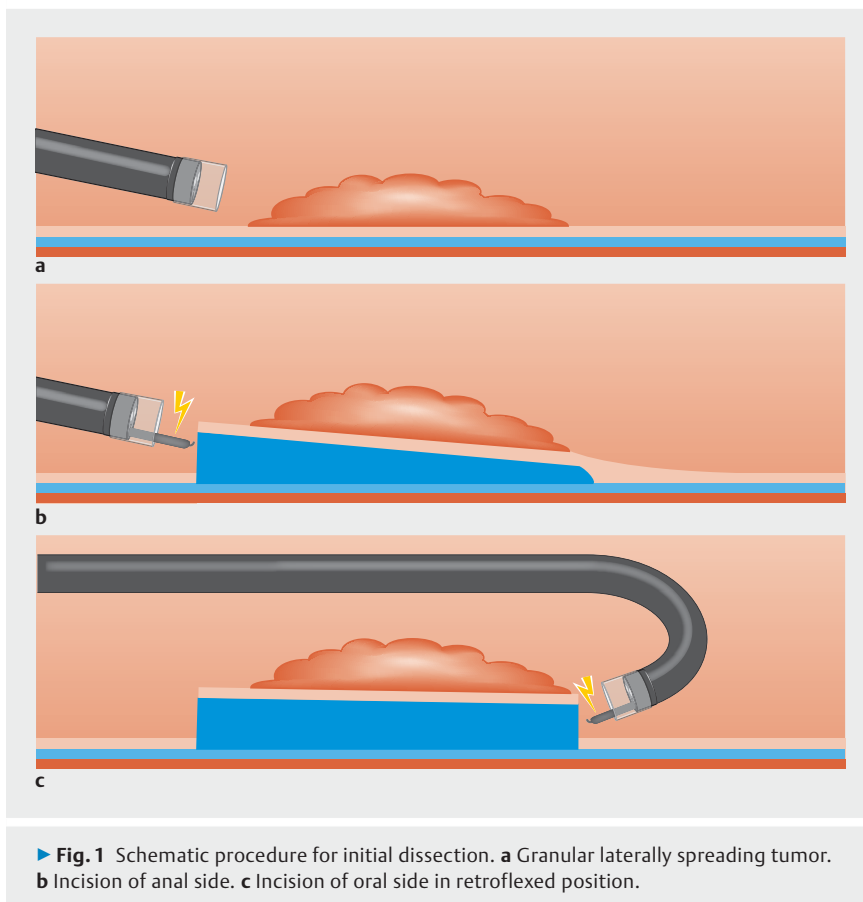
Endoscopic submucosal dissection with triangulated traction with clip and rubber band: the “wallet” strategy

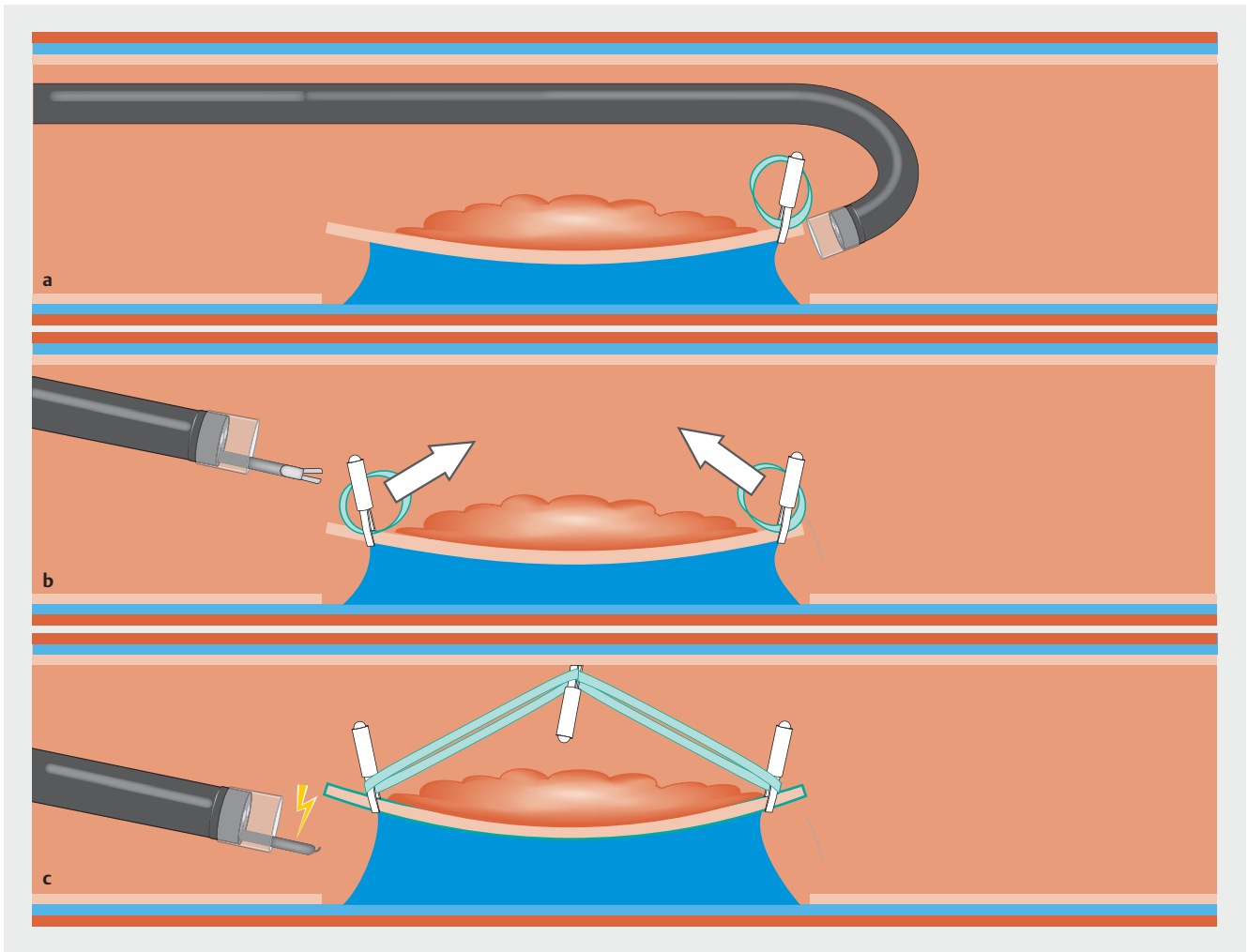
Endoscopic submucosal dissection (ESD) is the reference method for the curative endoscopic resection of colorectal tumors [1, 2]. Nevertheless, it is technically challenging, and new strategies to facilitate the procedure are requested. Counter-traction strategies, such as the clip and rubber band approaches, allow the enlargement of the submucosal space [3, 4]. In the colon, line traction makes a tangential traction without triangulation, and is not really adaptive as the dissection progresses [5]. We report a case of ESD for a colonic laterally spreading tumor in a patient with a history of pancolonic ulcerative colitis.

For this resection, we used the “wallet strategy” (▶ **Video 1**) in order to obtain a strong counter-traction to achieve en bloc resection in this fibrotic situation of ulcerative colitis. First, the two edges (oral and anal) of the lesion were incised. Then, trimming was performed at both edges in direct and retroflexed approaches, in order to achieve deep access to the submucosa and to release both mucosal edges (▶ **Fig. 1**).

After this step, two elastic rubber bands were fixed with hemoclips to both proximal and distal mucosal flaps. By trapping both rubber bands with a third metallic clip, we used triangulation traction and fixed the clip to the opposite mucosal wall (wallet aspect) (▶ **Fig. 2**). The submucosa was fibrotic and fatty, which is typical in ulcerative colitis. Thanks to this double traction, the submucosa was strongly stretched perpendicularly to the muscular layer plan (▶ **Fig. 3 d**, ▶ **Fig. 4**), facilitating dissection.

This strategy must be compared prospectively with other traction strategies, but seems to offer a strong counter-traction with a perpendicular angle with the muscular layer. Stretching both proximal and distal edges allows the removal of the muscle from the cutting line and could improve safety. Furthermore, this strategy is adaptive, as the strength of





► **Fig. 2** Schematic for traction part of the procedure. **a** Placement of first clip and rubber band. **b** Placement of second clip and rubber band. **c** Triangulation obtained by fixing both clips to the opposite mucosal wall, and dissection of the residual stretched submucosal.

the rubber band traction changes with insufflation and with dissection progression (► **Fig. 2 c**).

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Competing interests

None

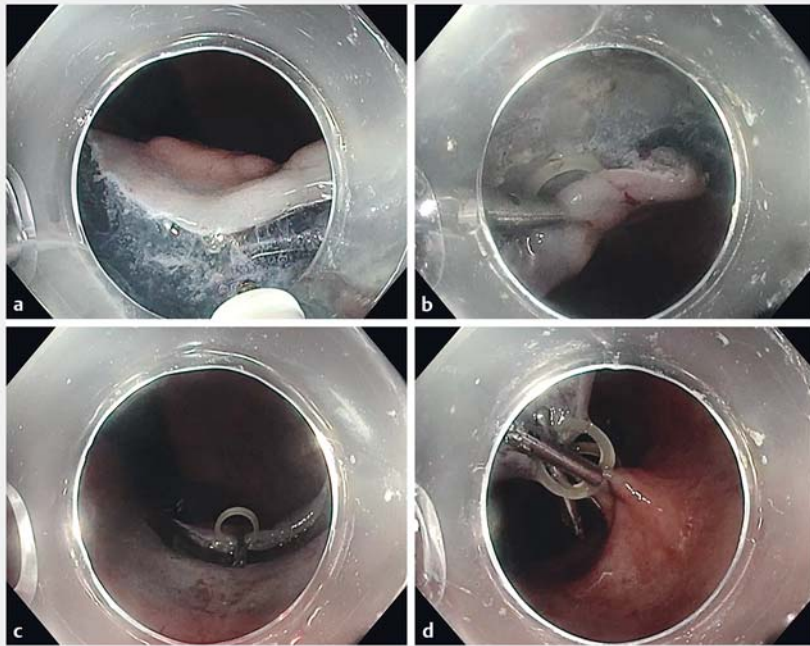
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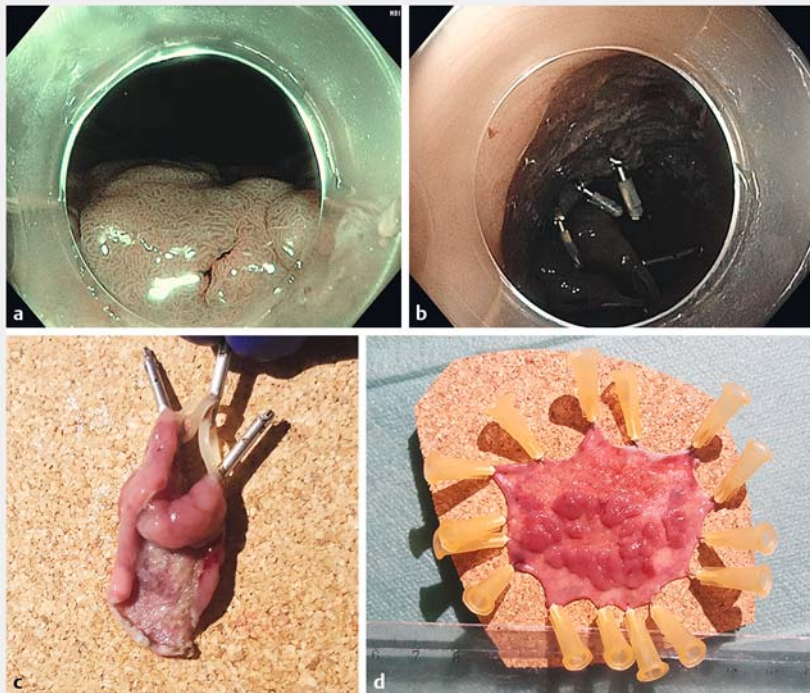
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► **Fig. 3** Endoscopic aspect. **a** Mucosal incision. **b** Distal clip rubber band placement. **c** Proximal clip rubber band placement in retroflexion. **d** Fibrotic submucosa stretched as a result of the traction.



► **Fig. 4** Colonic laterally spreading tumor. **a** Narrow-band imaging characterization. **b** End of dissection, closing the mucosal defect with clips. **c** Specimen after removal. **d** Stretched specimen with scar on cork.

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