Double-clip counter-traction using a rubber band is a useful and adaptive tool for colonic endoscopic submucosal dissection

The colon is the most technically challenging location for endoscopic submucosal dissection (ESD) of large, superficial, precancerous and cancerous lesions [1]. Appropriate exposure of the submucosal space can be very difficult, even when performed by experts, owing to the thinness of the submucosal space in this location and because the gravitational assistance is not constant. Moreover, the presence of colonic loops, bowel and respiratory movements, and position modifications resulting from insufflation increase the difficulty of performing ESD in this location.

Various strategies have been proposed to overcome these challenges, including pocket ESD [2] and the clip-with-line technique [3]. We recently reported the double-clip counter-traction method using a rubber band for large adenomas involving the appendix [4]. Here, we report a new strategy, which involves double-clip counter-traction using a rubber band and adjustment of the counter-traction during the procedure.

As shown in Fig. 1 and Video 1, after hemicircumferential mucosal incision of a large sigmoid adenoma, the first clip was attached to the anal side of the lesion, grasping both the specimen and the rubber band. A second clip was then placed on the bowel wall in front of the lesion on the cecum side of the colonic wall to allow exposure of the submucosal space. Rapid and safe dissection was performed using this counter-traction method. However, the submucosal space narrowed progressively as the counter-traction effect subsided due to the specimen turning in on itself (Fig. 1c). The clip that was attached to the colonic wall was therefore removed using a 10-mm polypectomy snare with gentle traction. A new clip, grasping the rubber band, was then placed on the colonic wall in front of the lesion on the anal side of the colonic wall, 5 cm distal to the specimen, to create traction in a tent-like fashion (Fig. 1d). Traction allowed rapid and safe completion of the dissection of this 7-cm adenoma with low grade dysplasia in less than 2 hours.
The double-clip strategy using a rubber band is an efficient and adaptive procedure that allows constant exposure of the submucosal layer, enabling safe and rapid ESD. Removal and repositioning of the clip during the procedure allow modification of the counter-traction to allow constant appropriate exposure of the submucosal space. A prospective study is currently ongoing in two French referral centers to evaluate this strategy in consecutive patients undergoing colonic ESD.

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Competing interests

None
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