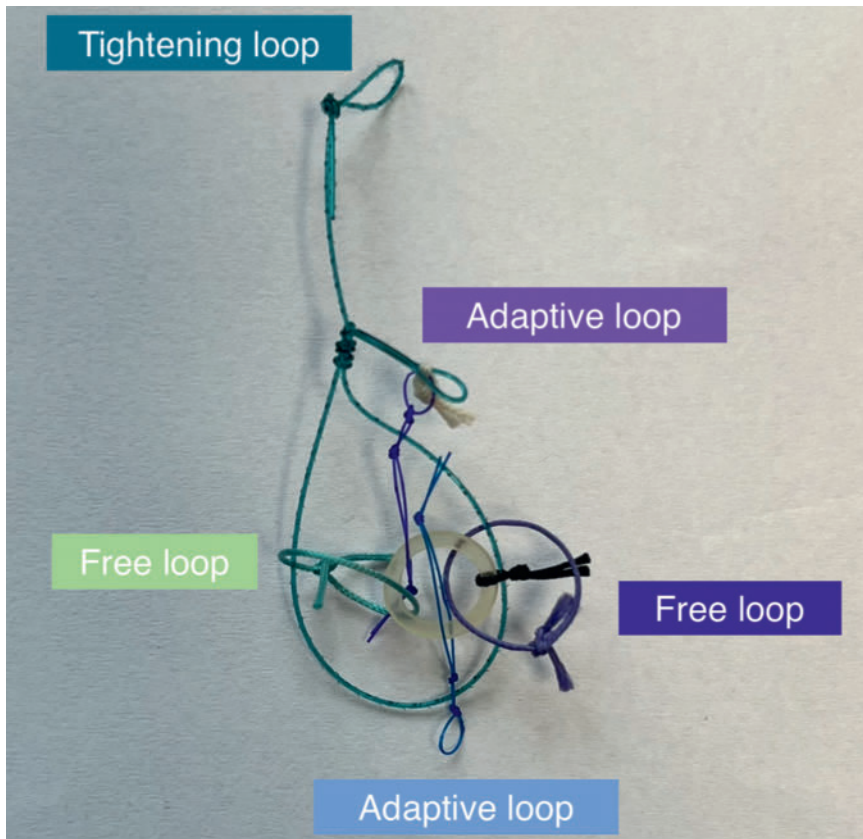


Hemicircumferential rectal endoscopic submucosal dissection combining multitraction and scope-dependent traction strategies

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► **Fig. 1** Photograph of the ATRACT 2+2 device.



► **Video 1** A hemicircumferential rectal endoscopic submucosal dissection is performed with multipolar traction.

The development of endoscopic submucosal dissection (ESD) has long been hampered by the difficulty and length of the procedures involved. In recent years, the development of traction strategies has greatly facilitated the practice of ESD [1,2]. As part of our research into traction, we developed an adaptive multipolar traction strategy using the ATRACT device [3–5]. We wanted to test combining this strategy with a new endoscopic lifting device, the FlexLifter (Olympus, Japan), which uses forceps to pull the lesion above the plane of the endoscope, thereby enlarging the submucosal plane to be dissected.

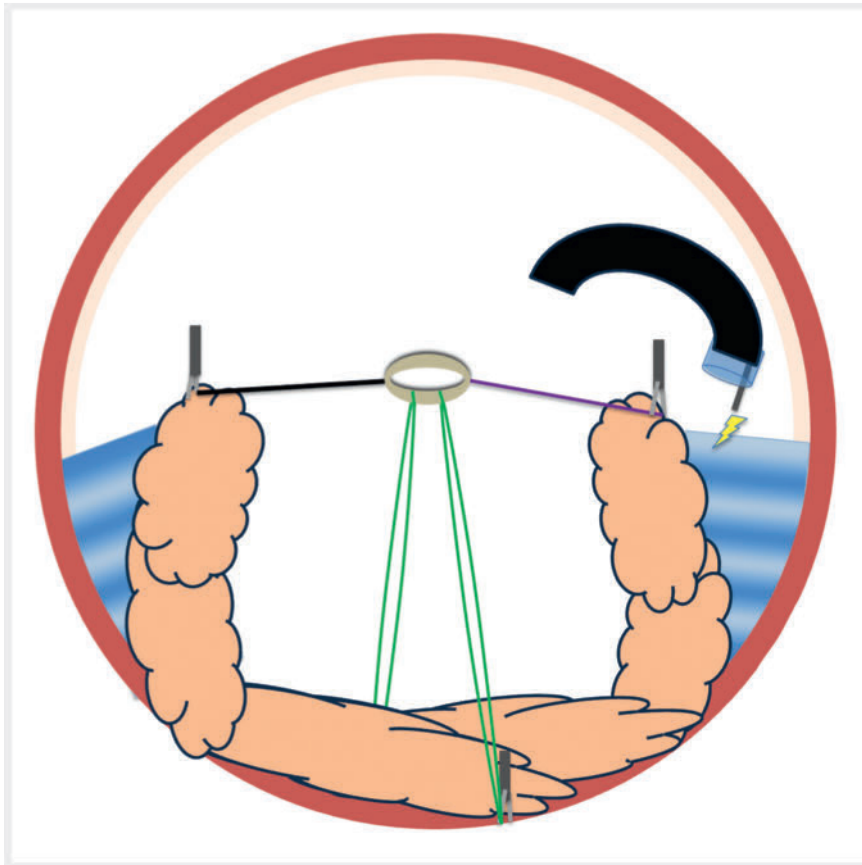
We report the case of a 72-year-old patient referred for resection of a hemicircumferential granular laterally spreading tumor of the rectum measuring 130×95 mm. We first positioned the ATRACT 2+2 device (► **Fig. 1**) at the four cardinal points of the lesion and began dissection without the need to fix the rubber band to the opposite wall, owing to the amount of traction generated by the hemicircumferential shape of the lesion (► **Fig. 2**). We then used the FlexLifter device, which we first attached to the ATRACT rubber band (► **Fig. 3**) and then to a precise point on the edge of the lesion itself (► **Video 1**). As the tensile strength of the device diminished as the procedure progressed, we finally hooked the rubber band to the opposite rectal wall, before completing the dissection. The procedure took 78 minutes (speed 124.3 mm³/min) and there were no complications. The lesion was an intramucosal adenocarcinoma (Vienna 4.4) and an R0 resection was achieved.

While the strategy of adaptive multipolar traction perpendicular to the lesion from the opposite wall seems the most effective, this case opens the door to the use of multimodal traction strategies adapted to each lesion.

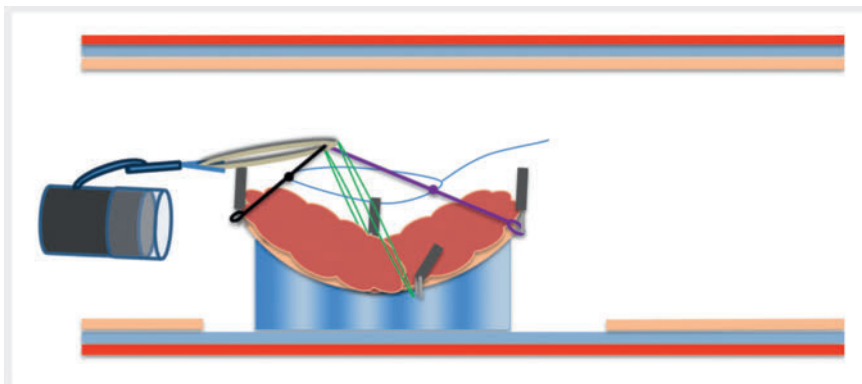
Endoscopy_UCTN_Code_TTT_1AQ_2AD_3AD

Conflict of Interest

J. Grimaldi, L.-J. Masgnaux, T. Wallenhorst, J. Rivory, J. Jacques, and M. Pioche are co-founders of the company ATRACT Device & Co. E. De Cristofaro declares that she has no conflict of interest.



► **Fig. 2** Schematic representation of an axial section of the rectum showing the multitraction device, which has been fixed at the four cardinal points, but that traction is sufficient to begin dissection without the need to fix the rubber band to the opposite wall, so this is kept for a later stage when traction decreases.



► **Fig. 3** Schematic representation of scope-dependent traction using the FlexLifter device, which widens the submucosal plane by pulling the lesion margin above the plane of the scope.

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