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Endoscopic submucosal dissection in the colon with adaptive traction device: resection strategy and device setup

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Endoscopic submucosal dissection (ESD) remains technically demanding. Traction seems to ease this procedure [1], but all traction strategies have their limitations [2], the main one being that traction force tends to decline as the dissection advances. An adaptive traction device, able to be tightened to increase traction during the procedure, has been described to overcome this limitation [3], but its installation remains challenging. We describe here the setup and strategy (▶ **Video 1**) using the traction device (A-TRACT-2 + 2; Hospices civils de Lyon, France) combining two linked loops that could be tightened with two free loops to obtain a multipolar traction on the four edges of the lesion (▶ **Fig. 1**).

We report here the case of a 69-year-old patient with a 4.5-cm granular lateral spreading tumor in the ascending colon. After complete circumferential incision and trimming, we fixed the device by catching the small purple loop on the fixed point (▶ **Fig. 1**) with a clip catching on the oral margin of the lesion. Then, the second blue loop, also linked to the tightening system, was released on the oral margin with a second clip. Afterward, the two free loops (green and purple) are caught and fixed on the two lateral margins to obtain four-pole traction. The rubber band is then caught and fixed to the opposite wall in an attempt to create 90° of traction, and dissection starts with traction. After one-third of the lesion is dissected, traction begins to decline, and we tighten the device by pulling out the green loop into the operating channel with a rat tooth forceps. The submucosal exposure was ideal until the end of the procedure, leading to a R0 resection without adverse event.

In conclusion, this device allows adaptive traction that appears useful but needs a precise sequence of instructions to install it properly, as described in this case.

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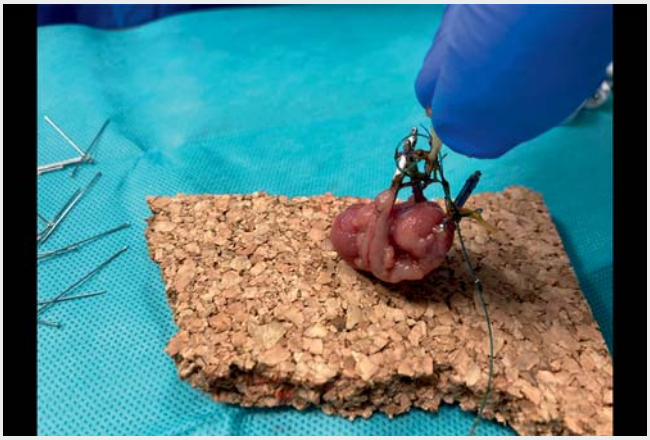


Video 1 Strategy and sequence of endoscopic submucosal dissection using A-TRACT 2 + 2.

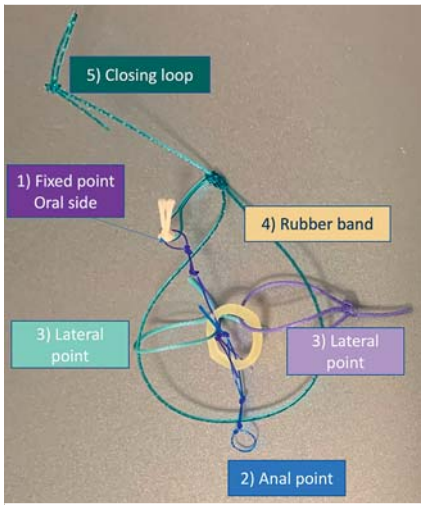
Competing interests

Our institution Hospices civils de Lyon has registered a patent on this device with a project of start up creation.

The authors

Mathieu Pioche[1], Louis-Jean Masgnaux[1], Jérôme Rivory[1], Thierry Ponchon[1], Timothée Wallenhorst[2], Romain Legros[1], Jérémie Jacques[3]

1 Gastroenterology and Endoscopy Unit, Edouard Herriot Hospital, Hospices Civils de Lyon, Lyon, France
2 Gastroenterology and Endoscopy Unit, Pontchaillou University Hospital, Rennes, France
3 Gastroenterology and Endoscopy Unit, Dupuytren University Hospital, Limoges, France



▶ **Fig. 1** A-TRACT device with the different components. **1** Fixed point attached to the oral side. **2** Second, blue loop linked to the tightenable part. **3** Lateral free loops to obtain four-cardinal-points traction. **4** Rubber band attached to the opposite wall. **5** Closure loop with notched wire.

Corresponding author

Mathieu Pioche, MD
Endoscopy Unit, Department of Digestive Diseases, Pavillon L – Edouard Herriot Hospital, 69437 Lyon Cedex, France
mathieu.pioche@chu-lyon.fr

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