

A traction wire facilitates the pocket-creation method for endoscopic submucosal dissection in the cecum

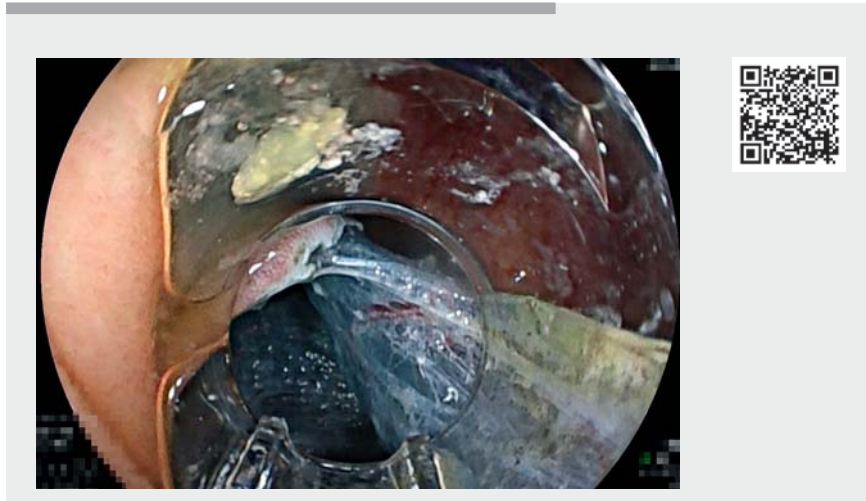
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► **Fig. 1** A 4-mm red adenoma (yellow arrows) with post-endoscopic mucosal resection scars close to the appendiceal orifice in the cecum.

Although the pocket-creation method (PCM) facilitates colorectal endoscopic submucosal dissection (ESD) [1], novice endoscopists sometime struggle to open the submucosal pocket at the end of the procedure. We previously reported the use of a reopenable clip to facilitate opening of the pocket; the traction provided by the clip allows the submucosa around the pocket to remain stretched [2]. A traction wire (ProdiGI Traction Wire, ERD-TW20, ERD-TW35; Medtronic, Minneapolis, Minnesota, USA) was recently introduced as a unique traction device consisting of a curved wire loop made from a shape-memory alloy with a grasping clip. A lesion can be pulled up by re-curling the traction wire connected between the area of dissection that includes the lesion and the wall behind the lesion. This traction wire can be used in various ways as a traction device [3, 4].

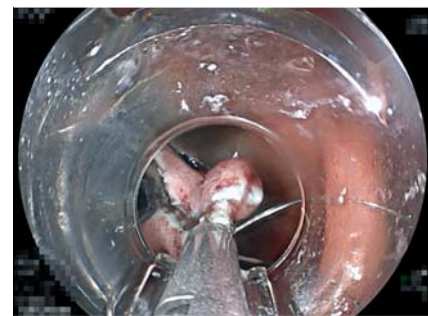
A 58-year-old woman was referred for endoscopic resection of a residual adenoma after multiple piecemeal endoscopic mucosal resections (EMR) for cancer in an adenoma in the cecum. Although the residual adenoma was only 4 mm in diameter, it was directly beside the post-EMR scar (► **Fig. 1**). We performed endoscopic submucosal dissection (ESD) to completely excise the adenoma together with the scar (► **Video 1**). The underlying sub-



► **Video 1** A traction wire facilitates the pocket-creation method for endoscopic submucosal dissection in the cecum.



► **Fig. 2** Post-endoscopic mucosal resection submucosal fibrosis was stretched by the tip of an ST hood in the submucosal pocket during the pocket-creation method. Then, the fibrotic area was safely dissected while identifying the muscle layer in the pocket.



► **Fig. 3** The grasping clip of a traction wire was deployed on an edge of the opening of the pocket after making a circumferential mucosal incision.

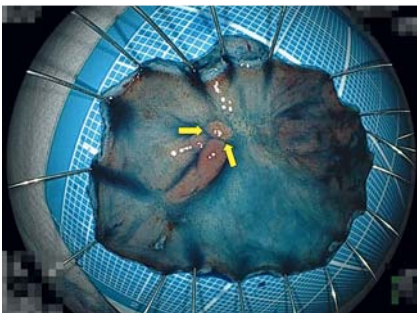
mucosa was completely dissected using PCM to create a submucosal pocket (► **Fig. 2**). We used the traction wire to facilitate opening the pocket because the partially dissected specimen was on a vertical wall in the distal cecum. The traction wire connected the proximal side of the specimen and the distal opposite wall (► **Fig. 3**). The spring-like nature of the wire pulled the specimen up, stretched

the remaining submucosa, and facilitated dissection (► **Fig. 4**). The ESD was completed without adverse events (► **Fig. 5**). Pathology revealed a low grade adenoma with scars and negative margins. This case demonstrates that a traction wire was useful to open the submucosal pocket at the end of the PCM.

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► **Fig. 4** A reposable clip (SureClip; Micro-Tech Co. Ltd., Nanjing, China) connected the other end of the traction wire to the distal opposite wall while stretching the curved wire. The partially resected specimen was then elevated by the traction wire. The remaining submucosa around the submucosal pocket was stretched and easily divided.



► **Fig. 5** Endoscopic submucosal dissection specimen. Pathologic examination revealed a low grade adenoma (yellow arrows) with negative margins. The scars were also completely dissected.

Competing interests

Hironori Yamamoto has a consultant relationship with the Fujifilm Corporation and has received honoraria, grants, and royalties from the company. Other authors have no conflicts of interest to disclose.

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