A traction wire facilitates the pocket-creation method for endoscopic submucosal dissection 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-curving 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 submucosa 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. 1 A 4-mm red adenoma (yellow arrows) with post-endoscopic mucosal resection scars close to the appendiceal orifice 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.

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


Bibliography

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