Endoscopic incision and balloon dilation using the rendezvous technique for complete anastomotic obstruction after rectal low-anterior resection

Anastomotic stenosis, a major complication after low-anterior resection, can usually be treated by endoscopic balloon dilation [1,2]. However, endoscopic management is challenging in the presence of a complete obstruction because an endoscope and other devices cannot be passed through the obstruction. Combined endoscopic incision and balloon dilation has reportedly been useful for treating complete rectal anastomotic obstruction [3]. If the patient has a stoma with double orifices, a simultaneous antegrade–retrograde approach to the obstructed anastomosis using two endoscopes may be feasible, a method known as the “rendezvous technique” [4].

A woman in her 60s underwent laparoscopic rectal low-anterior resection and a diverting loop ileostomy after previous endoscopic submucosal dissection (ESD) for early rectal cancer. Stoma closure was scheduled to be performed 7 months post-surgery, but a colonoscopy performed for preoperative evaluation revealed complete obstruction of the rectal anastomosis (▶Fig. 1). Accordingly, endoscopic intervention was attempted for this obstruction.

An endoscope (PCF-H290TI; Olympus Co., Tokyo, Japan) with a distal attachment (D-201-11804; Olympus) was passed through the distal loop ileostomy site until it reached the oral side of the obstruction site, with no evidence of flow of contrast agent sprayed from the trans-stomal endoscope to the anorectal side. Although contrast agent sprayed through the trans-stomal endoscope did not flow to the anorectal side (▶Fig. 2), transillumination from the trans-stomal endoscope could be seen across the septum (▶Fig. 3), suggesting that the obstruction was membranous.

The obstruction site was incised from the anal side, while the endoscopist on the right confirms the incision site from the oral side (▶Fig. 4). Complete recanalization of the obstruction following endoscopic balloon dilation was achieved (▶Fig. 5).
side using an electrosurgical endoknife (ISSEN; Kaneka Co., Tokyo, Japan) while the incision site was confirmed from the oral side using the rendezvous technique (▶ Fig. 4). After a small aperture was created, a controlled radial expansion balloon (Boston Scientific, Marlborough, Massachusetts, USA) was inserted and endoscopic balloon dilation was performed. The obstruction was completely recanalized without adverse events (▶ Fig. 5; ▶ Video 1).

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Competing interests
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