Can a modified esophageal stent be useful in the treatment of nonresponsive benign colonic anastomotic stenosis?

A 77-year-old woman with history of anterior rectal resection for neoplasia in 1998, followed by chemo- and radiotherapy, was referred to our unit because of an increase in subocclusive episodes (1–2 times a week) over the previous 5 months, due to a stenosis extending to 5 cm above the colorectal anastomosis. The patient had previously undergone several pneumatic dilation procedures for anastomotic stenosis, with substenosis of the colon above, following radiotherapy.

A computed tomography scan showed a benign stenosis of the anastomosis extending to 5 cm of the colon above, with wall thickening from the development of fibrotic tissue after radiotherapy. We performed a colonoscopy to confirm the clinical scenario; the colorectal anastomosis was located 4 cm from the anal verge (► **Fig. 1**). We planned to place a modified, esophageal, large-diameter, fully covered, self-expandable metal stent (FCSEMS), with an anti-migration system and proximal head (26 mm diameter, 100 mm length, 34 mm head; Tae-woong Medical, Gyeonggi-do, South Korea).

Under deep sedation, the patient underwent lower endoscopy with a gastroscope. The proximal and the distal ends of the stricture were marked with a submucosal injection of radiopaque contrast medium. A guidewire (Jagwire; Boston Scientific, Marlborough, Massachusetts, USA) was advanced beyond the stenosis and the FCSEMS was placed over the wire (► **Fig. 2**, ► **Video 1**). The patient was discharged the day after the procedure.

The stent was removed 4 weeks later with a rat tooth forceps, and complete resolution of the stenosis could be observed (► **Video 1**). No adverse events were observed during the placement or removal of the stent. At 1 month follow-up, the patient was free of subocclusive symptoms.

► **Fig. 1** Substenotic colorectal anastomosis at 4 cm from the anal verge.

► **Fig. 2** Radiological image of the fully covered, self-expandable, metal stent across the stricture, before its release.

► **Video 1** Technical phases of the placement and removal of the fully covered self-expandable metal stent (FCSEMS). 1) Study of the colonic substenosis. 2) Marking the area by submucosal injection of contrast medium 1 cm above and below the stenosis. 3) Guidewire release. 4) FCSEMS placement.

In conclusion, the large-bore, modified, esophageal FCSEMS can be a valid alternative in the treatment of colorectal stenosis that is nonresponsive to other endoscopic treatments.

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Competing interests

None

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