

Management of a benign colonic stricture using a through-the-scope fully covered metal stent

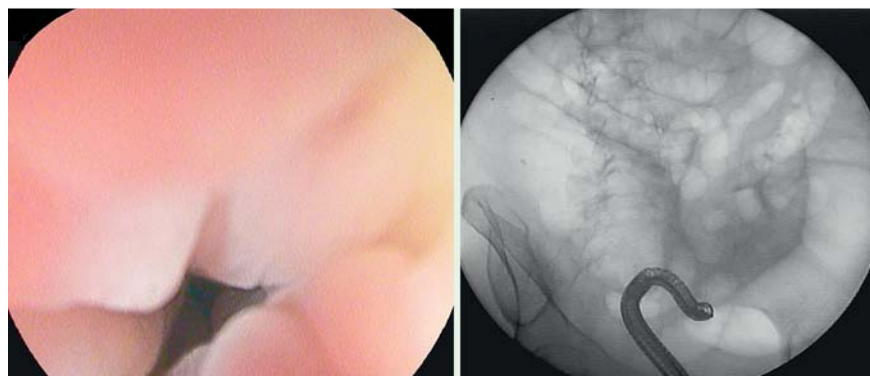


Fig. 1 Endoscopic and fluoroscopic views showing the sigmoid stricture.

A 72-year-old woman presented with nausea, lower abdominal pain, distension, and obstipation. A 4-cm benign sigmoid stricture had been diagnosed 1 year previously with recurrence after two trials of controlled radial expansion (CRE) balloon dilation. A computed tomography (CT) scan of the abdomen showed colonic distension (cecal diameter of 7 cm), collapsed thickened wall in the sigmoid/rectal area, and sigmoid diverticulosis. The patient was initially hesitant to undergo surgery and opted for placement of a temporary colonic stent.

An upper gastrointestinal endoscope with an insertion tube of 11.6 mm in diameter and a 3.8-mm working channel (EG-3490K; Pentax, Montvale, New Jersey, USA) was used with water immersion to distend the colon up to the sigmoid stricture at 21 cm from the anal canal (● **Fig. 1**). A sphincterotome loaded with a 0.035-inch 450-cm guidewire (Dreamtome RX44; Boston Scientific, Marlborough, Massachusetts, USA) was used under fluoroscopic guidance to advance the guidewire beyond the stricture. An 18-mm × 80-mm through-the-scope (TTS) fully covered esophageal stent (S Esophageal stent; TaeWoong Medical, Gyeonggi-do, South Korea) was inserted along the guidewire beyond the stricture. Copious amounts of stool flowed after deployment of the stent (● **Video 1**).

After stent placement, the patient's condition improved and subsequently she de-

cided to undergo surgery. Stent placement was therefore a bridge to surgery, allowing bowel cleansing for a single-operation laparoscopic sigmoidectomy. Pathologic assessment showed diverticulosis, chronic inflammation, marked thickening of the muscularis propria, and no evidence of neoplastic disease.

Self-expanding metal stents (SEMSs) have been shown to be an option in managing benign colonic strictures and as a bridge to surgery [1]. Recent guidelines have however recommended avoiding stent placement in diverticular-related strictures [2]. Fully covered SEMSs (FCSEMSs) have the advantage of easy retrieval and less local tissue reaction when compared to non-covered stents [3]. Careful stent placement is essential and a through-the-scope (TTS) stent may aid in safety. An in vivo animal study showed that an esophageal TTS-FCSEMS is easy to implant with no mesh distortion or membrane disruption [4].

In conclusion, this case shows the novel use of an esophageal TTS-FCSEMS to safely manage a benign colonic stricture by direct visualization and control. Obtaining a full view during placement decreases complications by allowing the stent to be maneuvered beyond both tight turns and the stricture, and for the proper position of the stent to be maintained during deployment.

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Video 1



Computed tomography (CT) scan showing colonic distension due to a sigmoid stricture; endoscopic and fluoroscopic views showing a guidewire being advanced through the stricture under fluoroscopic control and an esophageal fully covered self-expanding metal stent (FCSEMS) being positioned under direct endoscopic view to dilate the stricture; histologic view of the sigmoid resection specimen.

Competing interests: None

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