

A novel hybrid technique using transanal endoscopic microsurgery and balloon dilation in the treatment of a benign complete colorectal anastomotic stricture



Fig. 1 Endoscopic view showing a benign colorectal stricture at 12 cm from the anal verge, not amenable to endoscopic dilation.

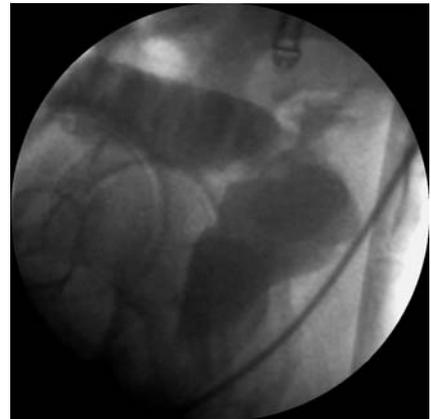


Fig. 2 Water-soluble contrast enema showing extracolonic contrast and a reopened colorectal anastomosis.

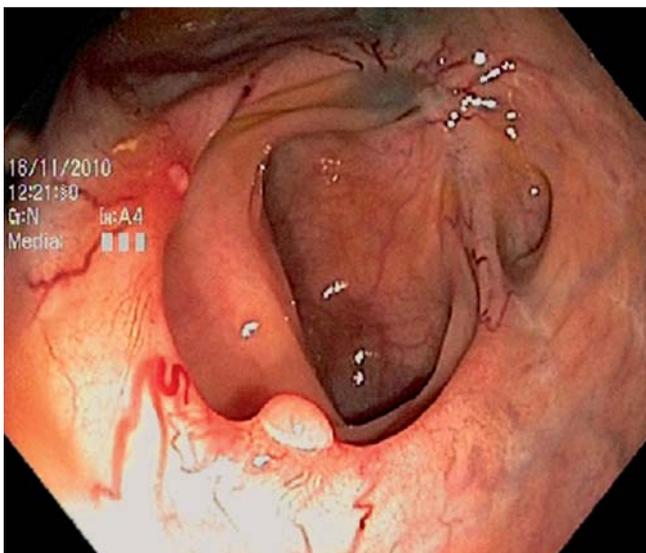


Fig. 3 Endoscopic view after 12 months showing no recurrence.

Benign strictures after an anterior resection with double-stapled anastomosis remain a problem with an incidence rate of 8% [1]. Usually, a coloanal or colorectal anastomosis can be treated conservatively with digital and bougie (Hegar) dilation or balloon dilation, respectively. If the rectal ampulla is preserved and the colorectal stricture is high, operative resection with creation of a new anastomosis might be indicated if balloon dilation is impossible or fails. Transanal endoscopic microsurgery (TEM)-assisted balloon strictureplasty could be a minimally invasive solution

to bridge the gap between radical surgery and conservative treatment.

A 50-year-old man (body mass index 30 kg/m², American Society of Anaesthesiologists [ASA] grade II) had undergone an uncomplicated laparoscopic resectosigmoid resection with double-stapled 33-mm diameter colorectal anastomosis for a pT1 N0 M0 adenocarcinoma. Three months postoperatively, he developed abdominal cramps, frequency, and fragmentation of defecation. He was diagnosed as having a complete colorectal anastomotic stricture at 12 cm from the

anal verge, not amenable to endoscopic dilation (▶ Fig. 1).

Local recurrence was ruled out by endoscopy with multiple biopsies and a computed tomography (CT) scan. Under general anesthesia and in lithotomy position, the 20-cm TEM rectoscope was inserted. The stricture was incised posteriorly with a vessel-sealing device. After reopening of the lumen, balloon dilation was carried out up to a diameter of 2 cm over 10 minutes (▶ Video 1).

The anastomosis was checked with water-soluble contrast enema (▶ Fig. 2).

Because of presacral extravasation, the defect was closed transversely with three PDS 3/0 stitches. The patient was discharged 2 days postoperatively. After 1 year, the patient is asymptomatic and colonoscopy showed no stricture (▶ Fig. 3).

The use of TEM and flexible endoscopy in the treatment of benign colorectal strictures has been reported [2–4], but the hybrid procedure presented here with TEM as a stable platform to create access

Video 1

After insertion of the TEM-rectoscope, the stenosed anastomosis was inspected. A vessel-sealing device was used to cut the fibrotic ring posteriorly and to visualize the proximal bowel. A guide wire was introduced and balloon dilation of the anastomosis was carried out.

to the proximal side of the anastomosis (which is dilated by a flexible balloon), is a promising tool for minimally invasive treatment.

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Competing interests: None

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