

Computed tomography-guided endoscopic recanalization of a completely obstructed rectal anastomosis



Fig. 1 Endoscopic view of the colorectal anastomosis from the rectum showing complete obstruction.

A 44-year-old man presented with complete obstruction of a colorectal anastomosis. He had undergone laparoscopic resection of the sigmoid colon 9 months previously for colonic perforation caused by endoscopic resection of a Peutz–Jeghers polyp. Surgical resection and reconstruction of the anastomosis, including diverging ileostomy, had been performed 6 months later because of anastomotic stricture and leakage. Closure of the ileostomy had been planned for 3 months later but high-pressure fluoroscopy showed no passage of contrast medium through the anastomosis and endoscopy confirmed complete obstruction with the former lumen being unidentifiable (▶ Fig. 1). The anastomosis could not be reached endoscopically through the ileostomy because of peritoneal adhesions.

A computed tomography (CT) scan was performed and the colon was filled with air through the ileostomy. A gastroscope was advanced through the rectum and placed close to the anastomosis. The CT scan showed a membrane at the tip of the endoscope that was completely separating the descending colon and the rectum (◀ Fig. 2a). An incision of the membrane was performed under CT guidance using a needle-knife (OE11018N3; Endo-Flex, Voerde, Germany), and a guidewire was advanced through the incision. The CT scan confirmed the intracolonic position of the wire (◀ Fig. 2b) and dilation using a wire-guided balloon (M00558680; Boston Scientific, Natick, Massachusetts, USA) was



Fig. 2 Computed tomography (CT) scan showing: **a** the endoscope in the rectum and the air-filled descending colon, which are separated by a membrane; **b** the correctly positioned guidewire that had been advanced into the descending colon after incision of the membrane.

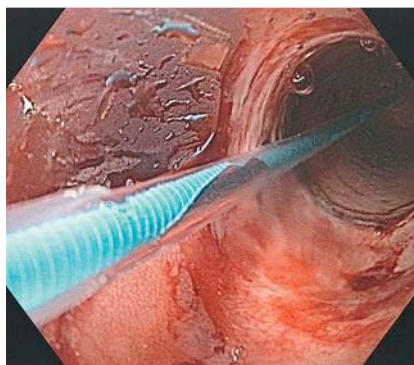


Fig. 3 Endoscopic view during balloon dilation after incision of the membrane and positioning of the guidewire under computed tomography (CT) guidance.

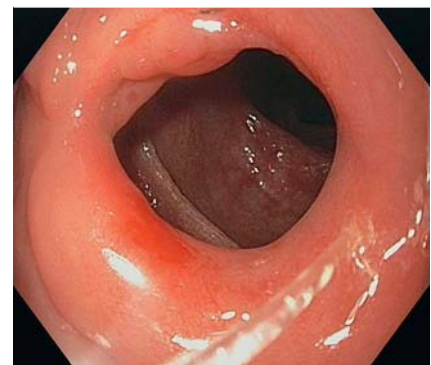


Fig. 4 Endoscopic view of the anastomosis 4 weeks after the endoscopic recanalization procedure.

performed up to a diameter of 12 mm (● Fig. 3).

The ileostomy was closed surgically 4 weeks later. During the first four weeks after recanalization, endoscopic dilation was repeated weekly with 18-mm balloons, by the end of which the stenosis had resolved completely (● Fig. 4). After 2 years, the patient remains free of symptoms.

Stricture of a colorectal anastomosis is a known complication and endoscopic dilation is the standard treatment. However, complete obstruction is rare and its treatment is not standardized. Case reports have described endoscopic approaches using different instruments, EUS-guided procedures, and rendezvous techniques [1–5]. In addition, CT guidance for endoscopic navigation should be considered to be helpful, especially when the anastomosis cannot be reached endoscopically from the proximal colon.

Endoscopy_UCTN_Code_TTT_1AQ_2AF

Competing interests: None

**Andreas Probst¹, Stefan Gölder¹,
Egbert Knöpfle², Lukas Axt³,
Helmut Messmann¹**

¹ Department of Gastroenterology, Klinikum Augsburg, Augsburg, Germany

² Department of Radiology, Klinikum Augsburg, Augsburg, Germany

³ Department of General, Visceral and Transplantation Surgery, Klinikum Augsburg, Augsburg, Germany

References

- 1 Kaushik N, Rubin J, McGrath K. Treatment of benign complete colonic anastomotic obstruction by using an endoscopic rendezvous technique. *Gastrointest Endosc* 2006; 63: 727–730
- 2 De Lusong MA, Shah JN, Soetikno R et al. Treatment of a completely obstructed colonic anastomotic stricture by using a prototype forward-array echoendoscope and facilitated by SpyGlass (with videos). *Gastrointest Endosc* 2008; 68: 988–992
- 3 Curcio G, Spada M, Di Francesco F et al. Completely obstructed colorectal anastomosis: electrosurgical endoscopic approach before balloon dilatation. *World J Gastroenterol* 2010; 16: 4751–4754

4 Albertsmeier M, Rittler P, Hoffmann RT et al. Treatment of a completely obstructed colonic anastomotic stricture using a CT-guided endoscopic rendezvous technique. *Endoscopy* 2011; 43 (Suppl. 02): E5–E6

5 Yazawa K, Morioka D, Matsumoto C et al. Blunt penetration technique of a completely obstructed anastomosis after rectal resection: a case report. *J Med Case Rep* 2014; 8: 236

Bibliography

DOI <http://dx.doi.org/10.1055/s-0034-1391131>
Endoscopy 2015; 47: E32–E33
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author

Andreas Probst, MD
III. Medizinische Klinik
Klinikum Augsburg
Stenglinstrasse 2
86156 Augsburg
Germany
Fax: +49-821-4003331
andreas.probst@klinikum-augsburg.de