

Treatment of a benign colorectal anastomotic stricture with a biodegradable stent

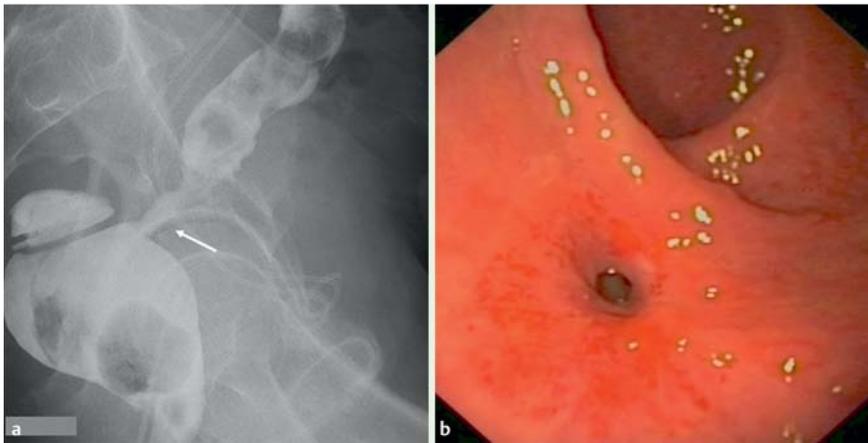


Fig. 1 The colorectal stricture visualized by use of: **a** contrast colonography (the arrow indicates the stricture at the colorectal anastomosis) and **b** endoscopy. The 2-cm long advanced stricture had a lumen less than 5 mm in diameter.

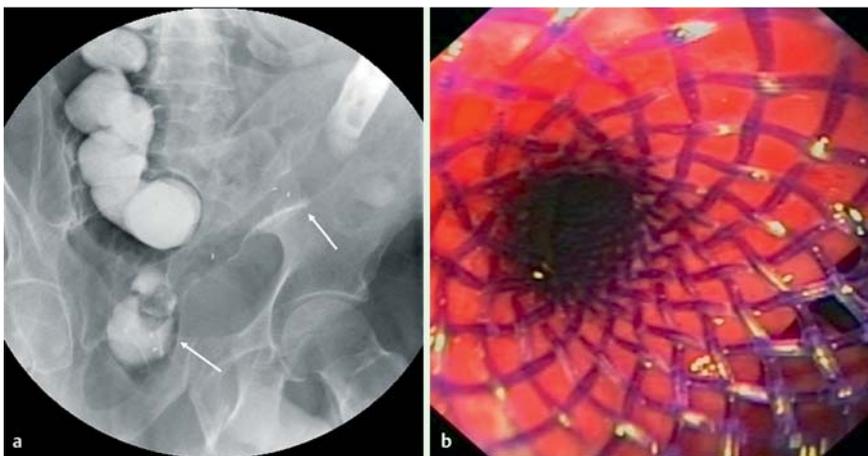


Fig. 2 Appearance of the biodegradable stent immediately after insertion, visualized by use of: **a** plain abdominal radiograph (arrows indicate the stent in place) and **b** endoscopy.

It is routine practice to use metal stents in the treatment of malign obstructions in the lower gastrointestinal tract [1]. However, metal stents are not suitable for benign conditions. Recently, treatment with biodegradable stents has been implemented for non-malignant diseases in the upper gastrointestinal tract [2,3], but there is no case in the literature reporting on the use of biodegradable stents for benign conditions in the lower gastrointestinal tract. Here we describe a case with a benign stricture in a colorectal anastomosis, treated with a biodegradable stent.

A 68-year-old man underwent sigmoid stoma reversal after Hartmann's procedure (for perforated diverticulitis). The pa-

tient developed a symptomatic stricture in the colorectal anastomosis (● Fig. 1), and biopsies were benign. Despite three endoscopic dilations, the patient suffered from repeated symptomatic stricture recurrence.

Due to significant co-morbidity, the patient was not suitable for surgical treatment. As an alternative approach, a self-expanding biodegradable esophageal stent (SX-Ella stent; ELLA-CS, Hradec Kralove, Czech Republic) was chosen. The lumen of the stricture was less than 5 mm and was dilated up to 12 mm. The biodegradable stent was deployed in the middle of the stricture using a guide wire (● Fig. 2). The position of the stent was

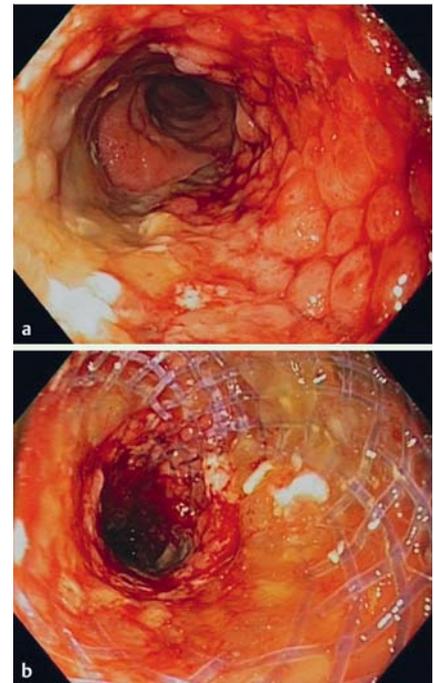


Fig. 3 Endoscopic images 6 weeks after stenting showing partial biodegradation of the stent in the: **a** proximal and **b** distal part of the colorectal stricture.

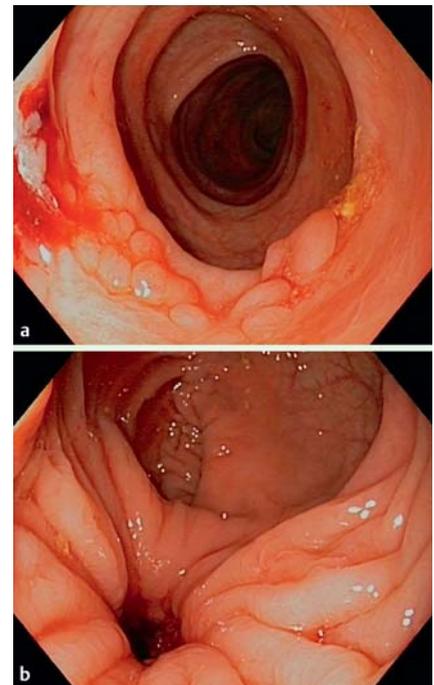


Fig. 4 Endoscopic images 5 months after stenting, showing complete disappearance of the stent with a patent lumen in the: **a** proximal and **b** distal part of the colorectal stricture, as well as a hyperplastic tissue reaction.

monitored 4 days later and the lumen further dilated to 15 mm. The stent position was monitored 6 weeks after deployment; the stent was shown to be partially reabsorbed (▶ Fig. 3). The patient was still asymptomatic and a colonoscopy revealed complete biodegradation of the stent 5 months later (▶ Fig. 4a). At this time, the lumen had reduced to 8 mm (▶ Fig. 4b) and was therefore dilated up to 18 mm. A follow-up was performed 2 years later, which revealed that the patient had no clinical symptoms although the size of the lumen had reduced.

This unique case demonstrates that treatment with biodegradable stents is also feasible in patients with benign strictures in the lower gastrointestinal tract.

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Competing interests: None

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