Doppler ultrasound-guided endoscopic needle-knife treatment of an anastomotic stricture following subtotal colectomy

A 28-year-old woman presented to our clinic with a 2-month history of dyschezia after subtotal colectomy and ileorectal anastomosis (IRA). Sigmoidoscopy showed a 5-mm long, nonulcerated IRA stricture (Fig. 1a), which was not traversable with a GIF-H180 gastroscope (Olympus, Tokyo, Japan) (Video 1). The patient did not have sustained symptom improvement after endoscopic balloon dilation, and it was decided to treat the refractory anastomotic stricture with endoscopic needle-knife therapy, carried out by an experienced endoscopist (BS). A follow-up sigmoidoscopy was accomplished without difficulty in intubating the anastomosis 3 months later. A small recurrent stricture at the IRA was further treated using the same method (Fig. 2a, b). The procedure took 10 minutes and was uneventful, and 24 hours later the patient had significant symptom improvement. A small recurrent stricture at the IRA was further treated using the same method (Fig. 2a, b). The procedure took 10 minutes and was uneventful, and 24 hours later the patient had significant symptom improvement.

Video 1
Use of a Doppler ultrasound probe to guide endoscopic needle-knife therapy.

Anastomotic strictures complicating colorectal surgery in 3–30% of all cases [1]. Endoscopic balloon dilation remains the preferred first-line treatment for benign anastomotic strictures due to its safety and feasibility [2], but long-term results appeared to be poor [3]. While there have been a few case reports of endoscopic needle-knife electroincision of upper gastrointestinal anastomotic strictures [4] and anastomotic leaks/sinuses [5], use of the technique has not been reported for stricture treatment in the lower gastrointestinal tract. In addition, electroincision as reported was carried out in a “blind” fashion and not with Doppler ultrasound guidance. To our knowledge, this is the first case report of the use of Doppler ultrasound in endoscopic needle-knife treatment of anastomotic strictures. The procedure appears to be simple, safe, and feasible for treating anastomotic strictures.

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Competing interests: None

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References

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