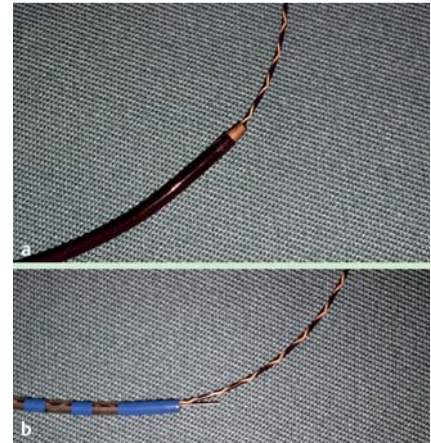


## Successful endoscopic dilation of severe bilioenteric strictures with a wire-guided diathermic dilator and short-type single-balloon enteroscope



**Fig. 1** A 6-Fr wire-guided diathermic dilator (Cysto-Gastro-Set), with a working length of 180 cm and a maximum diameter of 2.0 mm, can be used to dilate severe hepaticojunostomy strictures.



**Fig. 2** **a** A wire-guided diathermic dilator can easily be used to perform coaxial dilation from a tangential approach. **b** The needle-knife, and therefore the direction of electroincision, cannot always be aligned exactly along the axis of the guidewire.

Recently, balloon enteroscopy has made possible the use of endoscopic approaches to the surgically reconstructed intestine [1–4], so that hepaticojunostomy strictures can be treated endoscopically. We describe the successful endoscopic dilation of a severe hepaticojunostomy stricture with a wire-guided diathermic dilator (6-Fr, 180-cm Cysto-Gastro-Set; Endo-flex, Voerde, Germany) (Fig. 1).

A 66-year-old woman underwent pylorus-preserving pancreaticoduodenectomy for cancer of the pancreatic head. Cholangitis due to bilioenteric stricture developed at the third month after surgery. A short-type, single-balloon enteroscope (SIF-Y0004V01; Olympus Medical Systems, Tokyo, Japan) was used to perform balloon enteroscope-assisted endoscopic retrograde cholangiopancreatography (ERCP). A 0.025-inch guidewire could pass through the stricture, but an ERCP imaging catheter with a tapered tip, 1.8 to 2.3 mm in diameter (MTW Endoskopie, Wesel, Germany), and a 6-Fr Soehendra Biliary Dilation Catheter (Cook Medical, Winston-Salem, North Carolina, USA) could not.

A guidewire was placed in a hepatic duct, and the anastomotic stricture was electrically dilated with a 6-Fr Cysto-Gastro-Set. After the dilation procedure, an imaging catheter could be passed through the stricture. The anastomosis was dilated with a 6.8-Fr Quantum TTC Biliary Balloon Dilator 6 mm in diameter (QBD-6X3; Cook Medical), after which the cholangitis decreased (Video 1). There were no adverse events. The stricture was classified as a type A1 stricture according to the classification of Mönkemüller & Jovanovic [4].

In patients who undergo balloon enteroscope-assisted ERCP for hepaticojunostomy strictures, a tangential approach to the stricture site is often used. When a needle-knife is used, it is difficult to perform coaxial dilation from a tangential approach (Fig. 2b); this technique has caused anastomotic perforation [5] and so is not considered optimal. We therefore use a 6-Fr Cysto-Gastro-Set for the endoscopic dilation of anastomotic strictures (Fig. 2a), which facilitates dilation along the same axis as the guidewire [5]. Our results suggest that a 6-Fr wire-guided diathermic dilator may be useful for anastomotic dilation in patients with severe hepaticojunostomy strictures.

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**Competing interests:** None

### Video 1

Endoscopic dilation of a severe bilioenteric stricture with a wire-guided diathermic dilator.

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