Usefulness of a novel narrow-diameter endoscope for endoscopic balloon dilation of esophageal strictures

Esophageal stricture is a narrowing of the esophageal lumen, often causing esophageal obstruction [1,2]. Dilation of strictures by endoscopy using balloon dilation is indicated to restore the patency of the esophageal lumen [3]. We present the case of a 55-year-old Japanese man who presented with chest discomfort. Upper gastrointestinal endoscopy (UGE) revealed a full-circumferential ulcer in the mid-portion of the esophagus, without obvious dysmorphic epithelium (▶Fig. 1). In the absence of obvious malignancy on biopsy, proton pump inhibitors (PPI) were prescribed for severe reflex esophagitis. On day 36 of PPI treatment, the patient reported aggravation of esophageal stasis with solid food. On UGE, an esophageal stricture was observed and was treated by endoscopic esophageal dilatation (EED) using a 12-mm-diameter balloon (CRE PRO GI Wire-guided Balloon; Boston Scientific, USA). EED needed to be repeated 2 weeks later. On this second occasion, the stricture was assessed using an ordinary 9.8-mm-diameter upper gastrointestinal endoscope (EG-840T; Fujifilm, Japan), as used on the previous occasion. The endoscope could not be passed through the region of stricture due to scarring in the area of the ulcer (▶Fig. 2). Therefore, we selected to use a narrow-diameter, 7.9-mm upper gastrointestinal endoscope (EG-840TP; Fujifilm). Although the narrow-diameter endoscope could not be passed through the region of stenosis, it could be safely inserted into the esophageal inlet, providing a more detailed assessment of the stricture compared to the 9.8-mm diameter endoscope. The narrow-diameter endoscope includes a 3.2-mm hole for endoscopic forceps, which allowed us to perform EED using a 13.5-mm-diameter balloon (CRE PRO GI Wireguided Balloon) without difficulty (▶Fig. 3; ▶Video 1). After EED, the endoscope could be passed through the region of stenosis without resistance. Based on our experience, we propose that the novel narrow-diameter endoscope is a potential first-choice endoscope for safe and reliable EED.
Conflict of Interest
The authors declare that they have no conflict of interest.

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References


Fig. 3 a, b The 9.8-mm upper gastrointestinal endoscope could not be passed safely through any region of the stenosis and was therefore exchanged for one of a narrower diameter that could pass through the esophageal inlet in order to further evaluate the stricture. c, d EED was subsequently performed without difficulty using the narrow endoscope with a 13.5-mm diameter balloon.

Bibliography
Endoscopy 2024; 56: E21–E22
DOI 10.1055/a-2223-4325
ISSN 0013-726X
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