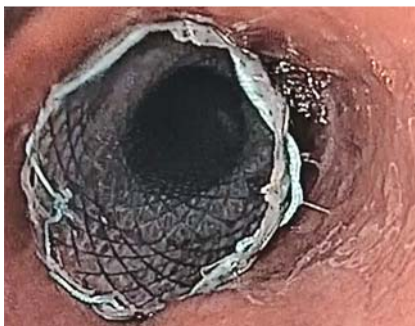


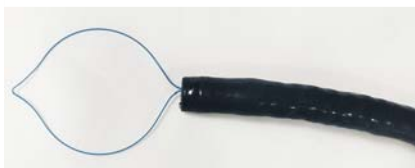
## Use of loop and clips to prevent migration of esophageal stent



► **Fig. 1** Esophageal stricture with ulcerated surrounding mucosa.



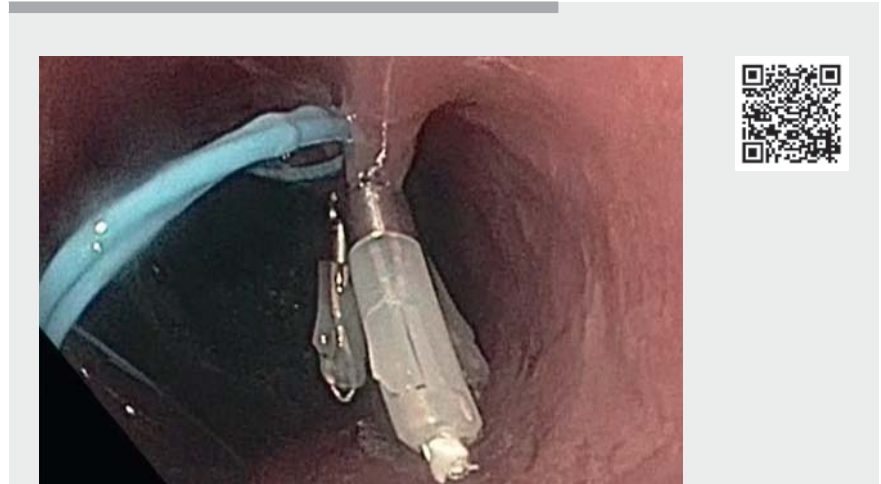
► **Fig. 2** Self-expandable metal stent deployed at the stricture site.



► **Fig. 3** Endoloop pulled inside the endoscope channel.



► **Fig. 4** Fixation of the loop to the upper part of the stent with the help of through-the-scope clips.



► **Video 1** Application of endoloop and clips to fix a self-expandable metal stent to the esophageal wall in order to prevent migration.

A 25-year-old gentleman presented with dysphagia for solids and liquids. He had a history of accidental ingestion of high-temperature melted iron particles 4 weeks back while working in the iron industry. Upper gastrointestinal endoscopy revealed a stricture with ulceration in the lower esophagus at 35 cm from the incisors (► **Fig. 1**). The 9.8-mm diameter endoscope could not be negotiated beyond the stricture site; further examination with a 5.5-mm-diameter endoscope revealed a stricture length of 3 cm and normal gastric mucosa. The patient underwent four sessions of dilatation with Savary-Gilliard dilators up to 15 mm, but the stricture persisted. A fully covered esophageal self-expandable metal stent (18 × 100 mm; Wallflex, Boston Scientific) was deployed as a rescue treatment (► **Fig. 2**). In view of the risk of migration, the stent was fixed to the esophageal wall with the help of an endoloop and clips (► **Video 1**). A 30-mm endoloop (model no. MAJ-254; Olympus) was grasped with a forceps and partially pulled inside the channel (► **Fig. 3**). The endoloop was released near the upper margin of the stent. One end of the loop was fixed with

the help of through-the-scope clips (HX-610-090 L, Olympus) to the upper part of the stent (► **Fig. 4**). Six clips were applied to fix the endoloop to the esophageal wall.

Fully covered metal stents are effective treatment for benign esophageal disease, but migration of the stent remains an important issue [1]. Various techniques have been used to prevent the migration of an esophageal stent. Over-the-scope clips [2], Shim technique [3], a suturing device [4], and a mucosal flap technique [5] have all been used to fix the stent. We have described a new technique using the widely available endoloop and through-the-scope clips.

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## Competing interests

The authors declare that they have no conflict of interest.

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