Article published online: 2023-03-30

Esophageal endoscopic submucosal dissection using a novel thin therapeutic scope for early esophageal cancer adjacent to chemoradiotherapy-induced stricture

OPEN ACCESS

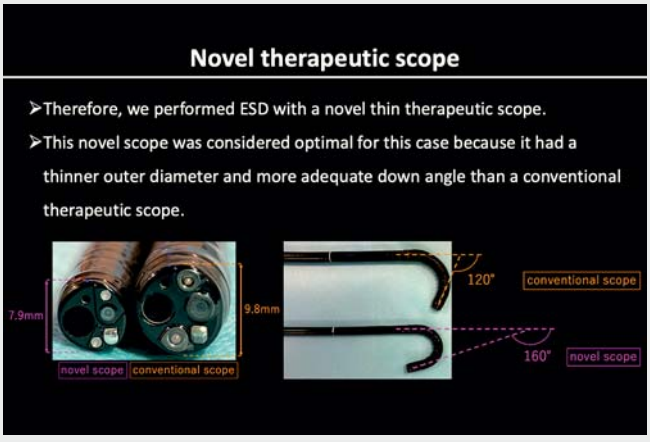
Metachronous esophageal cancers frequently occur, but endoscopic submucosal dissection (ESD) for lesions that occur adjacent to post-treatment scars are often challenging. Furthermore, in cases involving post-treatment stricture, endoscopic balloon dilation or scar incision may be required before ESD, so synchronous ESD for such lesions are even more challenging. Recently, a novel therapeutic thin endoscope, the EG-840TP (Fujifilm, Tokyo, Japan), has been developed. This scope has a thinner outer diameter (7.9 mm) and more adequate down angle (160°) than a conventional therapeutic scope (▶ **Fig. 1**, ▶ **Fig. 2**). We report a very successful case of ESD using this scope for a superficial esophageal cancer adjacent to a chemoradiotherapy-induced stricture (▶ **Video 1**).

The patient was a 75-year-old woman who underwent chemoradiotherapy for early esophageal cancer 11 years previously. A new lesion was detected adjacent to the chemoradiotherapy-induced stricture (▶ **Fig. 3**). However, a conventional therapeutic scope could not pass the stricture, making it very challenging to perform synchronous ESD. Given this situation, we decided to perform ESD using the novel thin scope.

Iodine staining confirmed that the lesion did not extend substantially to the anal side of the stricture. The scope enabled us to make the markings and mucosal incision on the anal side of the lesion beyond the stricture (▶ **Fig. 4**). The scope was only just able to pass through the stricture for mucosal incision on the anal side of the lesion. Thereafter, although severe fibrosis was observed, resection using the water pressure method was achieved en bloc without adverse events (▶ **Fig. 5**) [1].

Use of this novel thin scope may allow synchronous endoscopic treatment for challenging cases that would normally require prior treatment for stricture. This scope will contribute to the further development of endoscopic treatment.

▶ **Fig. 1** Comparison of outer diameter of the novel scope and the conventional treatment scope. The novel scope has a thinner outer diameter of 7.9 mm, whereas the conventional therapeutic scope has an outer diameter of 9.8 mm.

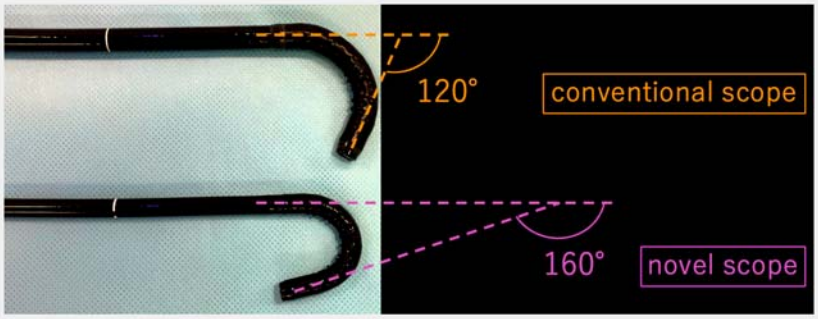


▶ **Video 1** Esophageal endoscopic submucosal dissection using a novel thin therapeutic scope for early esophageal cancer adjacent to chemoradiotherapy-induced stricture.

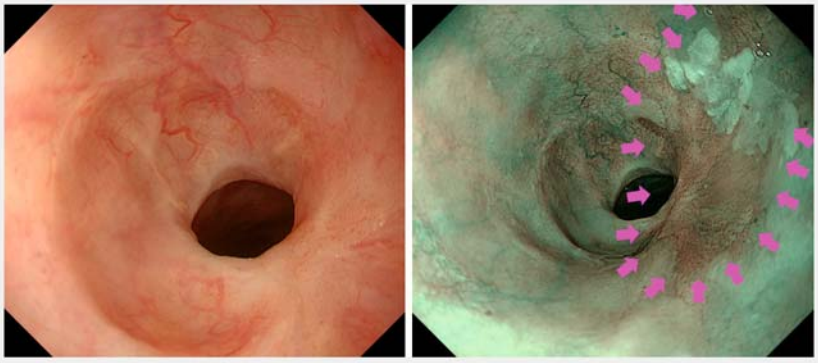
Endoscopy_UCTN_Code_TTT_1AO_2AG

Competing interests

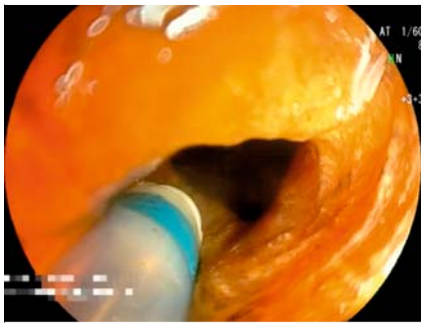
The authors declare that they have no conflict of interest.



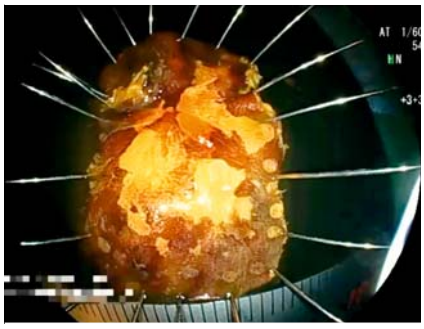
▶ **Fig. 2** Comparison of down angle of the novel scope and the conventional treatment scope. The novel scope has a more adequate down angle of 160°, whereas the conventional therapeutic scope has down angle of 120°.



▶ **Fig. 3** White-light and narrow-band imaging of the lesion and stricture. A new lesion (arrows) was detected adjacent to the chemoradiotherapy-induced stricture.



▶ **Fig. 4** White-light imaging of the lesion marking beyond the stricture. The novel scope enabled us to make the markings beyond the stricture.



▶ **Fig. 5** White-light imaging of the specimen with iodine staining. R0 resection was successfully achieved.

The authors

Kurato Miyazaki[1,2], Motohiko Kato[2], Takanori Kanai[1], Naohisa Yahagi[2]

1 Division of Gastroenterology and Hepatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan
2 Division of Research and Development for Minimally Invasive Treatment, Cancer Center, Keio University School of Medicine, Tokyo, Japan

Corresponding author

Motohiko Kato, MD, PhD
Division of Research and Development for Minimally Invasive Treatment, Cancer Center, Keio University, School of Medicine, 35 Shinanomachi, Shinjuku-ku, Tokyo 160-8582, Japan
motohikokato@keio.jp

Reference

[1] Masunaga T, Kato M, Yahagi N. Successful endoscopic submucosal dissection using the water pressure method for cervical esophageal cancer. Dig Endosc 2021; 33: e93–e94

Bibliography

Endoscopy 2023; 55: E581–E582
DOI 10.1055/a-2045-7601
ISSN 0013-726X

Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany