Guidewire-assisted technique for gastroscope insertion through stricture of Zenker’s diverticulum for esophageal endoscopic submucosal dissection

A 65-year-old asymptomatic man underwent screening esophagogastroduodenoscopy before treatment for tongue cancer. Standard gastrosopes (GIF-H290Z and GIF-H290; Olympus) could not pass through the cervical esophagus. However, an ultra-slim gastroscope (GIF-XP290N; Olympus) was able to pass through and revealed a Zenker’s diverticulum (Fig. 1 a, b). A superficial esophageal cancer was detected in the upper thoracic esophagus (Fig. 2). Biopsy specimens from the lesion showed squamous cell carcinoma. The patient opted for endoscopic submucosal dissection (ESD), which requires standard gastroscope insertion (Video 1).

An ultra-slim gastroscope was introduced through the stricture of the Zenker’s diverticulum. A 0.035-inch guidewire (Hydra Jagwire; Boston Scientific Corporation, Marlborough, Massachusetts, USA) was advanced and kept in the stomach through the accessory channel of the ultra-slim gastroscope after its withdrawal (Fig. 3). Subsequently, a straight catheter was placed in the accessory channel of the standard gastroscope. The guidewire was inserted from the tip of the gastroscope through the catheter in a retrograde fashion. This procedure allowed for scope exchange. The standard gastroscope passed the stricture of the diverticulum through the guidewire, but the gastroscope was not able to pass through even with an endoscopic cap. Thus, ESD was performed without the endoscopic cap using ESD knives (Dual Knife J and IT-knife nano; Olympus). The lesion was successfully resected en bloc uneventfully (Fig. 4, Fig. 5).

Zenker’s diverticulum is a rare anatomic defect characterized by herniation of the mucosa and submucosa through the Killian triangle located in the esophageal cervical region. They are usually asymptomatic, but dysphagia, aspiration pneumonia, and stricture may occur as the diverticulum expands. Endoscopic diver-
ticulotomy has been indicated for symptomatic Zenker’s diverticulum [1, 2]. In our case, the standard gastroscope could access the lesion beyond the Zenker’s diverticulum, and ESD was performed without endoscopic diverticulotomy. We demonstrate a method that could be utilized for advanced endoscopy in patients with asymptomatic Zenker’s diverticulum [3].

Endoscopy_UCTN_Code_TTT_1AO_2AH

Competing interests

The authors declare that they have no conflict of interest.

The authors

Kengo Kasuga¹, Seiichiro Abe¹, Ichiro Oda¹, Shigetaka Yoshinaga¹, Haruhisa Suzuki¹, Toshio Uraoka², Yutaka Saito¹

1 Endoscopy Division, National Cancer Center Hospital, Tokyo, Japan
2 Department of Gastroenterology and Hepatology, Gunma University Graduate School of Medicine, Maebashi, Japan

Corresponding author

Seiichiro Abe, MD
National Cancer Center Hospital, 5-1-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan
Fax: +81-3-3542-3815
seabe@ncc.go.jp

References


Bibliography

Endoscopy
DOI 10.1055/a-1512-8278
ISSN 0013-726X
published online 2021
© 2021, Thieme. All rights reserved.
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is a free access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online.

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos

Video 1
Demonstration of guidewire-assisted technique for standard gastroscope insertion through Zenker’s diverticulum for esophageal endoscopic submucosal dissection.

Video 1
Demonstration of guidewire-assisted technique for standard gastroscope insertion through Zenker’s diverticulum for esophageal endoscopic submucosal dissection.

Kasuga Kengo et al. Guidewire-assisted technique for... Endoscopy | © 2021. Thieme. All rights reserved.