Endoscopic line-attached clipping closure with laparoscopic suturing for duodenal defects involving the medial wall post-endoscopic submucosal dissection

Duodenal endoscopic submucosal dissection (ESD) is difficult to perform owing to a high incidence of complications, including intra/post-ESD perforation and bleeding. A complete closure of the post-ESD mucosal defect can prevent post-ESD perforation, but the success of a complete endoscopic closure depends on the size and location of the defect [1]. Although laparoscopic seromuscular suturing is the most reliable closing method [2], it cannot be used for duodenal lesions over the medial wall.

A 50-year-old man was endoscopically diagnosed with a duodenal adenoma, which was a flat, elevated, 3-cm lesion located near the ampulla and extended from the medial wall to the anterior wall of the second portion of the duodenum (Fig. 1). This lesion was judged as an indication for ESD, but it was difficult to achieve a complete closure with endoscopic clipping. Hence, duodenal ESD was planned, followed by a combined closure method including endoscopic line-attached clipping and laparoscopic suturing.

Endoscopic pancreatic stenting was performed to visualize the position of the ampulla and to prevent post-ESD pancreatitis before ESD (Fig. 2). A duodenal adenoma was successfully resected en bloc with ESD. The post-ESD mucosal defect extended from the medial wall to the anterior wall. The anterior-wall defect was visualized with a transparent laparoscopic light, whereas no laparoscopic light was observed in the medial defect (Fig. 3). Subsequently, the anterior-wall defect was laparoscopically sutured from the serosal side, and the medial-wall defect was closed with line-attached clipping. Finally, the post-ESD mucosal defect was completely closed (Fig. 4).

The resected tumor was pathologically diagnosed as high-grade dysplasia (Fig. 5). No adverse events were observed after the treatment. The pancreat-
ic stent was endoscopically retrieved 2 months later. Endoscopic line-attached clipping closure with laparoscopic suturing is a useful closure technique for duodenal post-ESD defects involving the medial wall (▶ Video 1).

Endoscopy_UCTN_Code_TTT_1AO_2AI

Competing interests

The authors declare that they have no conflict of interest.

The authors

Takaya Shimura1, Hiroyasu Iwasaki1, Tomotaka Okubo2, Naomi Sugimura1, Yusuke Okuda1, Takahito Katano1, Hiromi Kataoka1

1 Department of Gastroenterology and Metabolism, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan

2 Department of Gastroenterological Surgery, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan

Corresponding author

Takaya Shimura, MD, PhD
Department of Gastroenterology and Metabolism, Nagoya City University Graduate School of Medical Sciences, 1 Kawasumi, Mizuho-cho, Mizuho-ku, Nagoya 467-8601, Japan
Fax: +81-52-852-0952
tshimura@med.nagoya-cu.ac.jp

References


Bibliography

Endoscopy 2022; 54: E528–E529
DOI 10.1055/a-1662-4651
ISSN 0013-726X
published online 25.10.2021
© 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 an open 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. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

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