In recent years, the efficacy of endoscopic full-thickness resection for submucosal tumors has been reported [1, 2]. However, a reliable closure method for large full-thickness defects in the stomach remains unclarified. We developed the reopenable clip over line method for closing the mucosal defect after endoscopic submucosal dissection using reopenable clips and a line placed at the muscle layer and edge of the mucosal defect [3–5]. We report a new method of this type of closure of a 25-mm full-thickness defect in a porcine model (▶ Video 1).

The reopenable clip over line method is a defect closure method using a reopenable clip (Sureclip, 8mm; Micro-Tech Co., Ltd., NanJing, China) and a line (nylon line, 0.22mm). First, a 25-mm defect was created in the middle part of a porcine stomach (▶ Fig.1). A reopenable clip with an attached line was passed through the accessory channel and placed to grip the seromuscular layer and mucosa. Next, a line was inserted through a hole in the reopenable clip and then through the accessory channel. Thereafter, threaded a reopenable clip was placed over the line to grasp the seromuscular layer and mucosa. Additional threaded reopenable clips were repeatedly placed for the contralateral seromuscular layer and mucosa, and the defect was completely closed when the line was pulled by hand. The full-thickness defect closure time was 22 min with 20 reopenable clips. Finally, a modified locking-clip technique was used to fix the line to the normal mucosa and cut it [5]. The macroscopic view of the stomach from the serous side revealed closure of the distal defect between the serosa and of the proximal defect between the muscular layers.

The reopenable clip over line method can close a full-thickness gastric defect. By placing the reopenable clip from the distal side of the stomach to grasp the seromuscular layer and mucosa, partial serosa closure was possible.

Endoscopy_UCTN_Code_CPL_1AH_2AG

Competing interests

The authors declare that they have no conflict of interest.
The authors

Tatsuma Nomura1,2, Shinya Sugimoto1, Haruka Nakamura1,2, Taishi Temma1, Jun Oyamada1, Keiichi Ito2, Makoto Kobayashi3
1 Department of Gastroenterology, Ise Red Cross Hospital, Ise, Mie, Japan
2 Department of Gastroenterology, Mie Prefectural Shima Hospital, Shima, Mie, Japan
3 Department of Gastroenterology, Yokkaichi Municipal Hospital, Yokkaichi, Mie, Japan

Corresponding author

Tatsuma Nomura, MD
Department of Gastroenterology, Ise Red Cross Hospital, Ise gastroenterology, 1-471-2 Funae, Ise, Mie 516-8512, Japan
Fax: +81-596-65-5304
m06076tn@icloud.com

References


Bibliography

Endoscopy
DOI 10.1055/a-1824-4919
ISSN 0013-726X
published online 2022
© 2022. The Author(s).
This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (https://creativecommons.org/licenses/by-nc-nd/4.0/)
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

Video 1 Reopenable clip over line method for a 25-mm full-thickness gastric defect.