Two-session endoscopic purse-string suture to close a huge esophagojejunal anastomosis thoracic cavity fistula

Esophageal anastomosis leaks or fistulas are life-threatening conditions after surgery and have high morbidity and mortality. Traditionally, neither surgical repair nor conservative therapy could improve the prognosis effectively. In recent years, endoscopic methods, such as using esophageal stents, OverStitch (Apollo Endosurgery, Austin, Texas, USA), and the Over-the-Scope Clip system (Ovesco Endoscopy AG, Tübingen, Germany), have been an effective alternative to surgery [1–3]. However, it remains a challenge to endoscopically close huge fistulas, especially those larger than 30 mm. We report the method of endoscopic purse-string suture with clips and endoloops for the closure of a huge esophagojejunal anastomosis fistula [4].

A 74-year-old man diagnosed with cardiac carcinoma underwent laparoscopic distal esophagectomy and total gastrectomy. However, he presented with progressive shortness of breath 5 days after surgery. Upper gastrointestinal imaging showed anastomosis leakage. Gastroscope revealed a huge esophagojejunal anastomosis thoracic cavity fistula of approximately 35 mm in size located at the right wall of the anastomosis (Fig. 1). A nasojejunal feeding tube was implanted deeply beyond the fistula. Gastroscope 2 weeks later revealed that the fistula had not significantly decreased. Given the poor condition of the patient, surgery was abandoned and closure of the fistula by endoscopic purse-string suture was attempted (Video 1).

A 3-cm loop (MA-254; Olympus, Tokyo, Japan) was selected according to the fistula size. After adjustment of the location and angle of the endoloop, it was anchored onto the edge of the fistula with nine clips at different sides, aided by simultaneously tucking the edge with slight suction. The defect was then successfully closed by tightening the loop. Gastroscope 1 month later revealed...
that the fistula had decreased to 10 mm in size; endoscopic purse-string suture was repeated (▶Fig. 2a). Gastroscopy 1 month after this repeat procedure showed that the defect had completely closed (▶Fig. 2b).

This case suggests that endoscopic purse-string suture may be an effective and feasible method for closure of huge anastomosis fistulas, but multiple sessions might be needed.

Endoscopy_UCTN_Code_TTT_1AO_2AC

Competing interests

None

The authors

Wei Wang1, Ke Qi1, Xusheng Chang2, Zhendong Jin1, Zhaoshen Li1

1 Department of Gastroenterology, Changhai Hospital Affiliated to the Second Military Medical University, Shanghai, PR China
2 Department of Gastrointestinal Surgery, Changhai Hospital Affiliated to the Second Military Medical University, Shanghai, PR China

Corresponding author

Zhendong Jin, MD
Department of Gastroenterology, Changhai Hospital Affiliated to the Second Military Medical University, Building No. 11, Changhai Road No. 168, Yangpu District, Shanghai 200433, PR China
Fax: +86-21-31161336
jinzhen2017@163.com

References


Bibliography

DOI https://doi.org/10.1055/a-0658-0995
Published online: 22.10.2018
Endoscopy 2019; 51: E1–E2
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

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