Endoscopic ultrasound-guided detection and internal drainage of a closed gastro-cutaneous fistula after bariatric surgery

Endoscopic drainage of fistulas with plastic stents after bariatric surgery is a minimally invasive technique with high success and low morbidity rates [1, 2]. However, it is sometimes difficult to find or cannulate the internal orifice of the fistula owing to limited maneuverability, a relatively small opening, tortuous trajectory or even spontaneous closure of the orifice. In such cases, endoscopic ultrasound (EUS)-guided puncture can be an option for draining various fluid collections in the abdominal cavity [3, 4], by finding the internal orifice or by creating an additional trajectory to the collection [5].

We report the case of a 38-year-old patient with a postbariatric gastro-cutaneous fistula who was referred to our department for endoscopic drainage. Despite conservative therapy 3 months after a sleeve gastrectomy, the patient experienced continuous purulent cutaneous discharge of a peri-gastric collection. Water-soluble contrast swallow computed tomography (CT) scan showed a gastro-cutaneous fistula originating at the upper part of the staple line of the sleeve gastrectomy (Fig. 1a).

During the first endoscopy attempt, the gastric orifice was not visible despite injection of contrast via the cutaneous orifice. A second endoscopy was attempted and the fistula tract was detected endosonographically by injecting solution into the fistula through the cutaneous orifice. Water-soluble contrast swallow computed tomography (CT) scan showed a gastro-cutaneous fistula originating at the upper part of the staple line of the sleeve gastrectomy (Fig. 1a).

![Fig. 1 Endoscopic ultrasound (EUS)-guided drainage of a closed fistula after bariatric surgery. a Contrast swallow computed tomography scan detected the fistula tract (arrow). b Result after the procedure; pigtail stents in place. c Puncture under EUS guidance. d Cutaneous aspect with large defect. e End of procedure; pigtail stents in place (arrow).](image)
A 19-gauge needle was used to puncture the fistula tract and place a guidewire (▶ Fig. 1c, d). Balloon dilation was performed to enlarge the entrance, and a second guidewire was placed. Consequently, two 7-Fr double-pigtail plastic drains were placed in the fistula tract (▶ Fig. 1b, ▶ Video 1). One week after the intervention, there was no purulent cutaneous discharge and the CT scan showed the stents in the fistula through the internal orifice, with no contrast extravasation; the fluid collection had decreased compared with previous imaging (▶ Fig. 1 e).

When the fistula orifice is not clearly visible or when it closes spontaneously, EUS procedures allow success in draining the fistula in a one-step procedure.

The authors

Dora Lippai1,2, Alexandru Lupu2,3, Florian Rostain2, Jérôme Rivory2, Maud Robert4, Thierry Ponchon2,5, Mathieu Pioche2,5

1 2nd Department of Internal Medicine, Semmelweis University, Budapest, Hungary
2 Department of Endoscopy and Gastroenterology, Pavillon L, Edouard Herriot Hospital, Lyon, France
3 Department of Endoscopy and Gastroenterology, Fundeni Clinical Institute, Bucharest, Romania
4 Department of Bariatric and Digestive Surgery, Department of Endoscopy and Gastroenterology, Pavillon L, Edouard Herriot Hospital, Lyon, France
5 Inserm U1032 LabTau, Lyon, France

Corresponding author

Mathieu Pioche, MD
Endoscopy Unit – Digestive Disease Department, Pavillon L – Edouard Herriot Hospital, 69437 Lyon Cedex, France
Fax: +33-4-72110147
mathieu.pioche@chu-lyon.fr

Competing interests

None

References


Bibliography

DOI https://doi.org/10.1055/a-0631-8479
Published online: 2018
Endoscopy
© 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