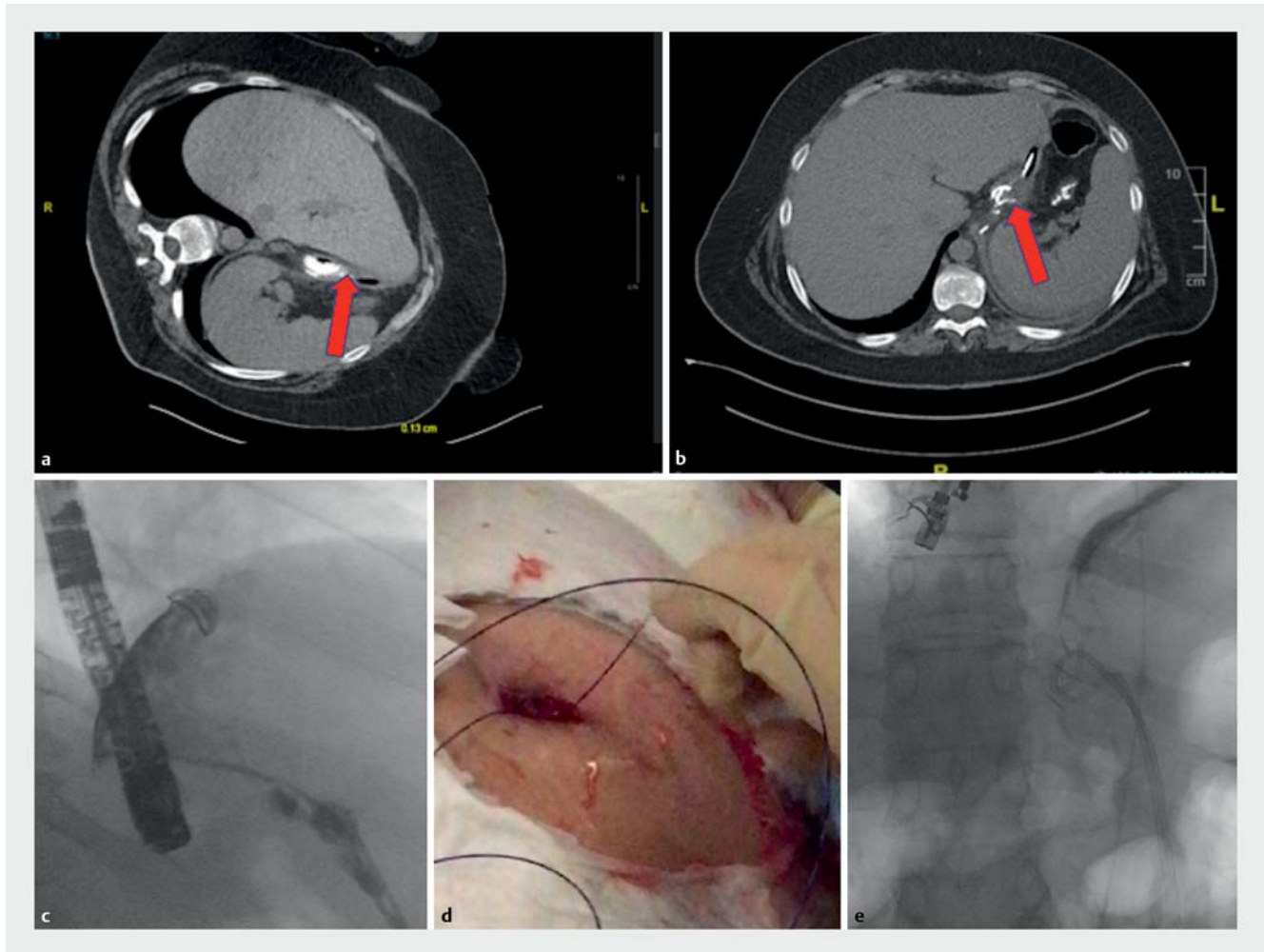


Endoscopic ultrasound-guided detection and internal drainage of a closed gastro-cutaneous fistula after bariatric surgery



► **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).

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 collec-

tions 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 collec-

tion. 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. 1 a**).

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



▶ Video 1 Endoscopic ultrasound-guided drainage of a closed fistula after bariatric surgery.

orifice. A 19-gauge needle was used to puncture the fistula tract and place a guidewire (▶ Fig. 1 c, 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. 1 b, ▶ 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.

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Competing interests

None

The authors

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