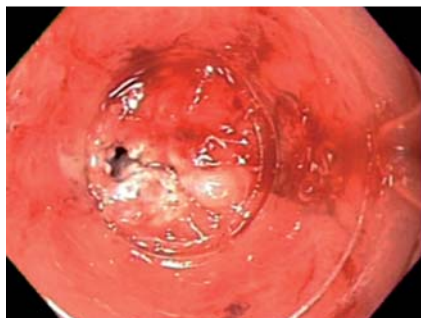


## Use of an over-the-scope clip for endoscopic sealing of a gastric fistula after sleeve gastrectomy



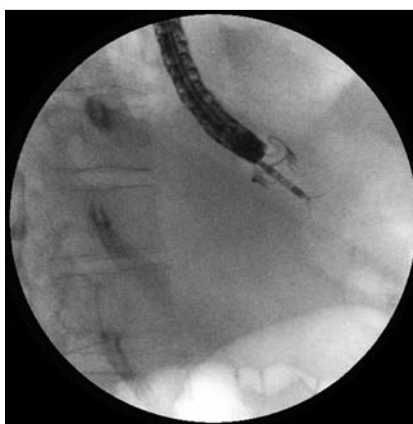
**Fig. 1** Endoscopic fistula.



**Fig. 3** The over-the-scope clipping system with the anchor catheter.



**Fig. 2** X-ray examination showing the extravasion of contrast medium.



**Fig. 4** The anchor catheter introduced through the fistula.



**Fig. 5** Fluoroscopic control after treatment with the over-the-scope clipping system.

Perforation or development of a fistula in the gastrointestinal tract is a serious complication. A gastrocutaneous fistula after sleeve gastrectomy is difficult to treat, with a mortality rate of 85% following unsuccessful treatment [1]. These fistulas have been successfully managed with endoscopic fibrin sealing [2]. Preliminary experience with the over-the-scope clipping system (Ovesco, Tübingen, Germany) has shown the efficacy of this intervention in the management of severe bleeding and perforations of the gastrointestinal tract [3–5].

This is the first report of the use of an over-the-scope clipping for the management of a gastric fistula. A 43-year-old woman underwent sleeve gastrectomy for morbid obesity. After 1 week, a fistula developed at the proximal end of the suture, 2 cm distal to the esophagogastric junction. A nasogastric drain and an ultrasound-guided external drain were inserted.

Endoscopy showed a 7-mm orifice (Fig. 1). Fig. 2 shows the extravasation of contrast medium, confirming the presence of a fistula. Two attempts to seal the fistula with hemoclips failed.

Placement of a large, colorectal expandable covered stent (Taewoong, Korea) was also attempted. The patient could not eat and complained of severe epigastric pain. The stent was removed 3 weeks later. Surgery was carried out, but the fistula reappeared 1 week later and a gastrocutaneous fistula was diagnosed.

The over-the-scope clipping system was used to overcome the limitations presented by the available hemoclips. The over-the-scope clip is delivered by means of an applicator cap placed on the tip of the endoscope. A catheter with a retractable anchor was introduced through the fistula and the grasped tissue firmly pulled inside the cap (Fig. 3 and 4).

The clip was then released and the fistula successfully closed. The patient was allowed to eat her usual diet 24 hours later after post-treatment evaluation. She was then discharged. The endoscopic and radiologic controls performed after 1 and 2 weeks confirmed sealing of the fistula (Fig. 5).

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