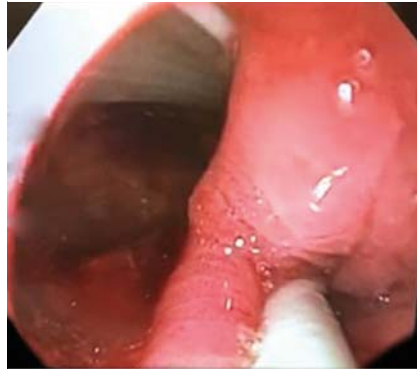


Novel use of a cardiac septal occluder to treat a chronic recalcitrant bariatric fistula after Roux-en-Y gastric bypass



► **Fig. 1** Computed tomography with evidence of free fluid and abdominal collection.



► **Fig. 2** Endoscopic view of the fistulous orifice.



► **Fig. 3** Radiological image demonstrating absence of contrast leakage after placement of a fully covered self-expandable metal stent. The first (proximal) clip indicates the fistulous orifice and the second indicates the gastrojejunal (distal) anastomosis.



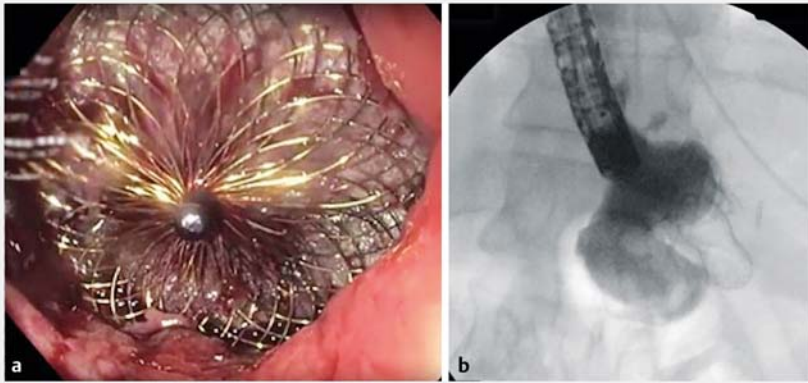
► **Video 1** Off-label use of the cardiac septal occluder (AMPLATZER Septal Occluder; Abbott, St. Paul, Minnesota, USA) for the treatment of chronic fistula after bariatric surgery with Roux-en-Y gastric bypass. After 15 days, the cutaneous ostium was closed completely. The patient remained asymptomatic at the 3-month follow-up. The cardiac septal occluder device appears to be effective and safe in the treatment of chronic bariatric fistulas. It seems to be an option mainly after conventional therapies have failed.

Although considered the gold standard for the treatment of obesity, bariatric surgeries are not free of complications. Fistulas occur after Roux-en-Y gastric bypass (RYGB) and sleeve gastrectomy in up to 8.3% and 7% of patients, respectively [1,2]. We describe the first report of the off-label use of the cardiac septal occluder (AMPLATZER Septal Occluder;

Abbott, St. Paul, Minnesota, USA) for the treatment of a chronic bariatric fistula (► **Video 1**).

A 33-year-old man with grade II obesity underwent RYGB. After 1 week, the patient was admitted with abdominal pain and fever. Computed tomography scan diagnosed a gastric pouch leak associated with intra-abdominal collec-

tions (► **Fig. 1**). Emergency surgery was indicated, a peri-gastric collection associated with a gastric pouch leak was confirmed, and placement of two abdominal drains was performed, followed by admission to the intensive care unit. After 25 days, the drain output was 300 mL/day, and an upper endoscopy showed a 20-mm leak in the gastric pouch in the topography of the superior staple line, just below the esophago-gastric junction (► **Fig. 2**). An esophageal fully covered metal stent (Hanaro, 16 cm × 22 mm; Micro Tech Co. Ltd., Anseong-Si, South Korea) was placed (► **Fig. 3**). The stent was fixed with the Shin technique to avoid migration [3]. After the stent placement, the drain output decreased to 30 mL/day. The stent was removed 4 weeks later because of patient intolerance. During the endoscopy, a chronic fistula (15 mm) with the external drain tube inside the orifice was observed. The drain was removed under direct endoscopic vision, until the endoscope was advanced to



► **Fig. 4** The septal cardiac occluder. **a** Endoscopic view. **b** Fluoroscopic view.



► **Fig. 5** Abdominal wall with complete closure of the two holes of the abdominal drains.

the skin. The fistula tract was noted to be fully epithelized.

As this chronic fistula remained unresponsive, placement of a cardiac septal occluder was performed (► **Video 1**, ► **Fig. 4**) [4, 5].

After 15 days, the cutaneous ostium was closed completely (► **Fig. 5**). The patient remained asymptomatic at the 3-month follow-up.

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Competing interests

Dr. Thompson reports personal fees from Boston Scientific, personal fees from Olympus, outside the submitted work.

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