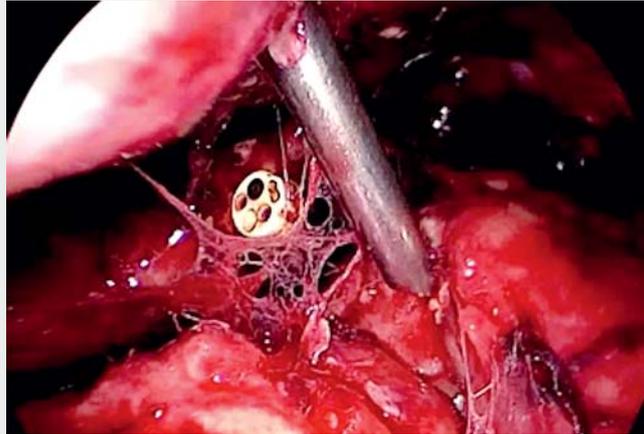
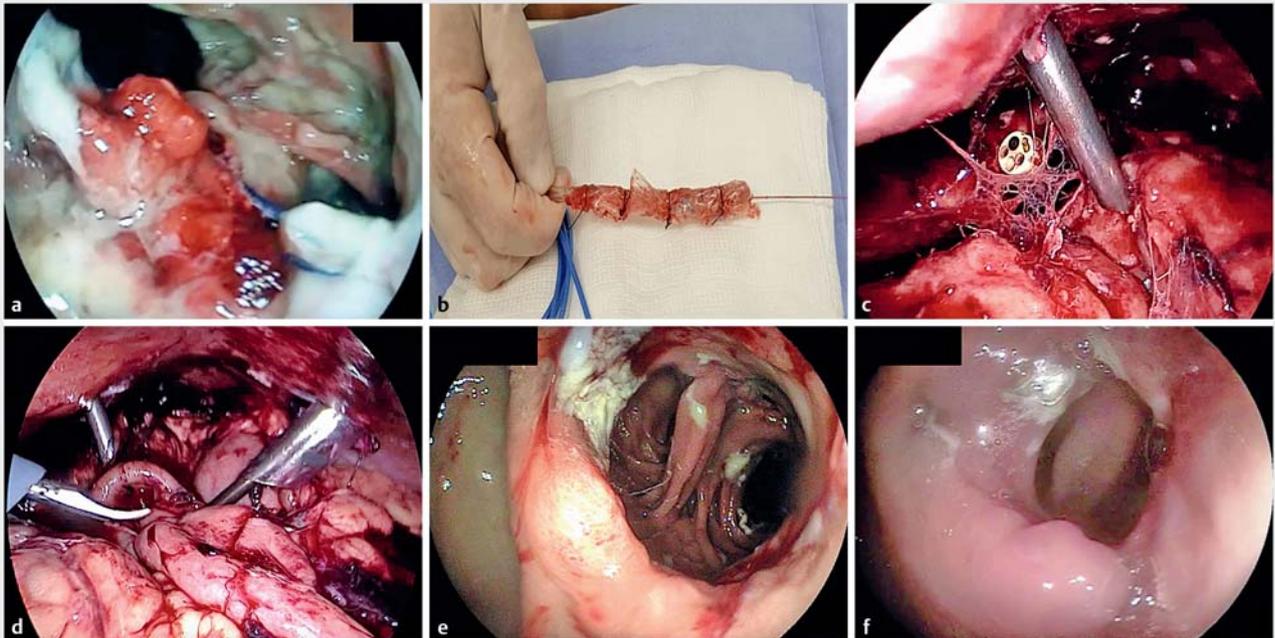


Novel laparo-endoscopic hybrid procedure to treat a disconnected Roux limb after bariatric surgery

Obesity is a worldwide pandemic and bariatric surgery is the most effective treatment modality. Despite its satisfactory clinical results, some patients regain some of their lost weight [1,2]. Traditionally, revisional surgery to reduce the gastrojejunal anastomosis (GJA) is offered to these patients. However, revisional procedures carry a higher complication rate than primary bariatric surgeries, including fistulas and dehiscence with incidences ranging from 1% to 8.3% after laparoscopic Roux-en-Y gastric bypass (RYGB) [2–4]. The diagnosis and treatment of bariatric surgery leaks are challenging due to nonspecific clinical and laboratory findings. Some cases are associated with situations of extreme gravity, narrowing the options for treatment and thus making the complications challenging to solve [5].



▶ Video 1 Novel laparo-endoscopic hybrid procedure to treat a disconnected Roux limb after bariatric surgery.



▶ Fig. 1 Laparo-endoscopic hybrid procedure to treat a disconnected Roux limb after bariatric surgery. **a** Endoscopic view of the gastrojejunal anastomosis (GJA) dehiscence and a cavity with necrotic tissue. **b** Modified endoscopic vacuum therapy system. **c** Laparoscopic view of the pouch and GJA disconnection showing the gastroscop tip. **d** Laparoscopic visualization of the distal portion of the FCSEMS. **e** Endoscopic view of the GJA after stent removal. **f** Follow-up endoscopy 1 month later, showing the GJA.

To illustrate this, we describe an unusual case involving a dehiscence of the gastric pouch from the Roux limb, which required prolonged intensive care and was ultimately treated by a laparo-endoscopic hybrid procedure (► **Video 1**).

A 29-year-old man, with a history of weight regain after RYGB 10 years previously (129 kg), underwent revisional RYGB surgery (154 kg). He presented 5 days later with intense abdominal pain. A computed tomography scan demonstrated a pneumoperitoneum and the patient was referred to the endoscopy unit for evaluation.

The endoscopy showed complete dehiscence of the gastric pouch from the Roux limb. A large amount of necrotic tissue was visualized and the entrance from the jejunal limb could not be identified (► **Fig. 1 a**). Endoscopic vacuum therapy was performed (► **Fig. 1 b**). After 4 days, a fully covered self-expandable metal stent (FCSEMS) was placed to reconnect the pouch and the GJA, under laparo-endoscopic guidance (► **Fig. 1 c, d**).

After 4 weeks, the FCSEMS was removed and the pouch and the GJA were confirmed to be reconnected (► **Fig. 1 e**). The patient was discharged on a regular diet. At follow-up endoscopy 1 month later, normal RYGB anatomy was seen (► **Fig. 1 f**).

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Competing interests

Dr. Thompson has received consultancy fees from Boston Scientific and Medtronic, and consultancy fees and institutional grants from USGI Medical, Olympus, and Apollo Endosurgery; he also has a patent issued for Endoscopic Fistula Repair, held by Brigham and Women's Hospital. Dr. Galvao Neto has received consultancy fees from Apollo Endosurgery.

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