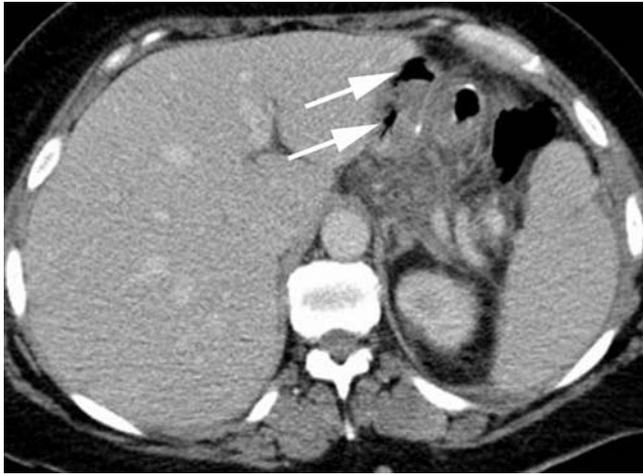
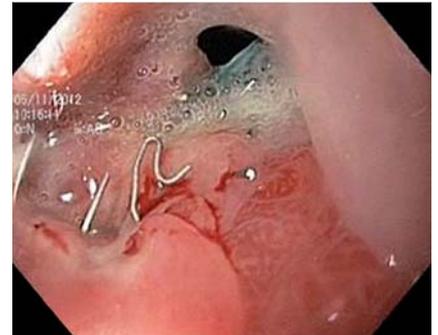


## Successful treatment of a gastric leak after bariatric surgery using endoluminal vacuum therapy



**Fig. 1** Computer tomography (CT) scan in a morbidly obese woman with a leak from the gastric pouch following a Roux-en-Y gastric bypass showing para-gastric air and fluid collections (arrows).



**Fig. 2** Endoscopic view showing the leak before insertion of the sponge.



**Fig. 3** Fluoroscopic image of the polyurethane sponge being inserted.



**Fig. 4** Endoscopic views showing: **a** insertion of the polyurethane sponge; **b** the appearance after 6 days of endoluminal vacuum therapy.

A gastric leak after bariatric surgery is a serious complication [1]. Its successful management requires considerable experience, expertise, and a patient-tailored, multidisciplinary therapeutic approach [1]. The effectiveness of surgical re-intervention is limited by the compromised and inflamed tissue adjacent to the leak, which makes its adequate closure either difficult or impossible [1,2]. In contrast, available endoscopic interventions, including fibrin sealing [2], over-the-scope clipping [3], and the insertion of intraluminal covered stents [1], have been shown to be good treatment options. Preliminary experience with endoluminal vacuum

therapy has provided supportive evidence for the efficacy of this intervention in the management of leaks following gastroesophageal anastomoses [4,5]. The favorable effects of this treatment may be due to the reduction in the intraluminal pressure and the marked growth of granulation tissue that it induces.

A 41-year-old morbidly obese woman who had undergone Roux-en-Y gastric bypass (RYGB) developed a major gastric leak (Fig. 1 and Fig. 2). Previously, two attempts had been made to seal the leak using covered metal stents (24 mm × 10 cm; Beta-stent 26/34 mm × 12 cm; both Taewoong Medical), but in both cases

the stents had migrated distally. We decided to endoscopically position a polyurethane sponge in the wound cavity (Fig. 3 and Fig. 4a). Continuous suction (125 mmHg) was applied via drainage tubes fixed to the sponge, which was changed every third day. Adequate closure of the leak was achieved within 1 week (Fig. 4b). Endoscopic and radiological investigations performed 6 months following discharge confirmed the leak had sealed completely, without signs of stenosis.

Therefore, we consider endoscopic vacuum therapy to be a promising choice for the treatment of complicated major leaks from the gastric pouch after RYGB. There is a need for technical improvements in the currently available vacuum therapy systems in order to make them more effective after complicated bariatric surgery.

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