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Acute bleeding from the excluded stomach in a patient undergoing one anastomosis gastric bypass

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Abstract

One anastomosis gastric bypass (OAGB) is currently the third most performed bariatric technique worldwide, with good medium to long-term results in terms of weight loss and improvement of comorbidities. Postoperative bleeding from the gastrointestinal tract occurs in approximately 1.93% of patients after gastric bypass. Bleeding from the excluded stomach, although rare, poses serious diagnostic and therapeutic difficulties due to its specific location, which can lead to a fatal outcome if not treated correctly. We present the case of a 39-year-old female patient with a BMI of 43.8 kg/m2 who underwent surgery using the BAGUA technique. Due to postoperative instability, reoperation was necessary, using upper gastrointestinal endoscopy and laparoscopy together. In view of the findings, it was decided to resect the excluded stomach. The patient stabilised postoperatively and was discharged on a liquid diet 5 days after the reoperation.

Keywords:

- OAGB
- Bleeding
- Excluded stomach
- Endoscopy
- Bariatric surgery

One anastomosis gastric bypass (OAGB) has become the third most performed bariatric technique worldwide [(1)], with good medium- to long-term results in terms of weight loss and improvement of comorbidities [(2,3)]. Postoperative bleeding from the gastrointestinal tract occurs in approximately 1.93% of patients after gastric bypass, and may occur at the gastrojejunostomy (most frequently), the gastric remnant, or the jejunojejunostomy suture line [(4)]. Bleeding from the excluded stomach, although rare, poses serious diagnostic and therapeutic difficulties due to its specific location, which can lead to a fatal outcome if not treated correctly.

We present the case of a 39-year-old female patient with a BMI of 43.8 kg/m2, who underwent surgery using the BAGUA technique with no intraoperative incidents. Ten hours after the operation, the patient presented hypotension (90/60mmHg) and tachycardia, as well as abundant haematic debit (300cc in 12 hours) due to drainage, together with a drop in haemoglobin (from 14.9mg/dl to 11.5mg/dl). Laparoscopic surgical reintervention was decided and abundant haemoperitoneum was observed (about 1200cc of free haematic content), which was aspirated and washed out. No active bleeding was observed, despite an exhaustive examination, and abundant clots were evacuated from the gastric section bed.

Two hours after completing this reoperation, the patient presented a new episode of hypotension (60/40mmHg), associated with frank haematemesis (several consecutive vomiting episodes). In view of this situation, a new laparoscopic surgical revision was decided.

No haemoperitoneum was observed, however, the gastric pouch and afferent loop were found to be full of haematic content. Intraoperative upper gastrointestinal endoscopy (UGE) was performed, revealing a large clot covering the entire reservoir. The clot was released and aspirated, with no evidence of active bleeding in the anastomosis (figure 1). Due to the instability of the patient, as well as the contents of the afferent loop, it was decided to resect the excluded stomach (figure 2). To do so, the greater curvature is freed, from the antrum to Hiss. Section is performed at the pre-pyloric level with an endocutter and haemostatic suture of

the same stapling line. Aspirative drainage is left in place. The patient stabilised postoperatively and was discharged home on a liquid diet 5 days after the reoperation.

Acute complications of gastric remnant (haemorrhage in particular) are a challenge, both in diagnosis and treatment. The role of resuscitation, fluid therapy, transfusion, monitoring and establishing the severity of bleeding (which depends on the clinical presentation and time of presentation) should be the first step in stable patients [5]. The instability of the patient (or lack of resources in emergency situations) requires, on certain occasions, more radical actions. Joseph J et al [6] propose a therapeutic algorithm differentiating the approach according to the patient's stability. In unstable patients, in addition to fluid and blood replacement, treatment with proton pump inhibitors should be initiated, with the possible addition of vasopressin or octreotide. In addition, upper gastrointestinal endoscopy (UGE) should be performed to look for possible cause and therapeutic approach. UGE is important to exclude any source of bleeding up to the gastrojejunal anastomosis and even beyond the jejunojejunostomy; however, it is limited by its inability to reach the biliopancreatic branch [7]. If the source is identified, haemostatic techniques including epinephrine injection, endoclip placement or cauterisation should be performed [6]. García-García et al [5], following a study of their series, recommend, if the bleeding is not localised and its origin is suspected in the excluded stomach, double balloon endoscopy; a technique that should be performed with extreme caution, as there is a greater risk of anastomotic dehiscence in the immediate postoperative period [8].

The creation of a percutaneous distal gastrostomy (either by ultrasound or CT guidance) or laparoscopic gastroduodenoscopy, in selected patients, can provide adequate visualization and treat the bleeding remnant, although these methods are not straightforward and are not easily used in routine practice [9].

When these methods fail, other authors advocate the use of interventional radiology to embolise the bleeding vessel [6]. However, the possibility of being able to perform this depends on the existence, in certain centres, of a localised interventional radiologist. Occasionally, the patient's instability, or the absence of these emergency methods, makes it necessary to perform exploratory laparoscopy, as occurred in our case, with or without UGE. Gastrectomy of the remaining stomach is the most aggressive and radical treatment, although it is an option to be considered when the above measures fail.

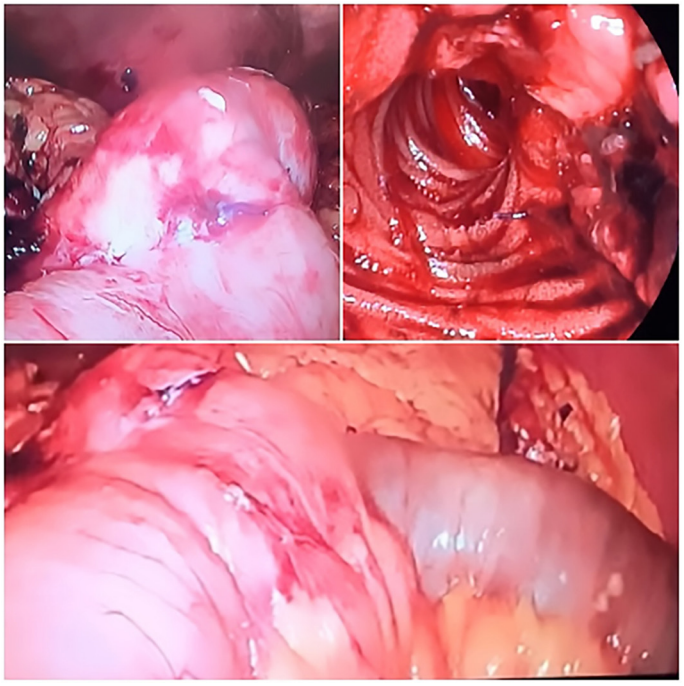

Figure 1: The dilated pouch, the afferent loop filled with blood content, and the anastomosis without active bleeding are observed.

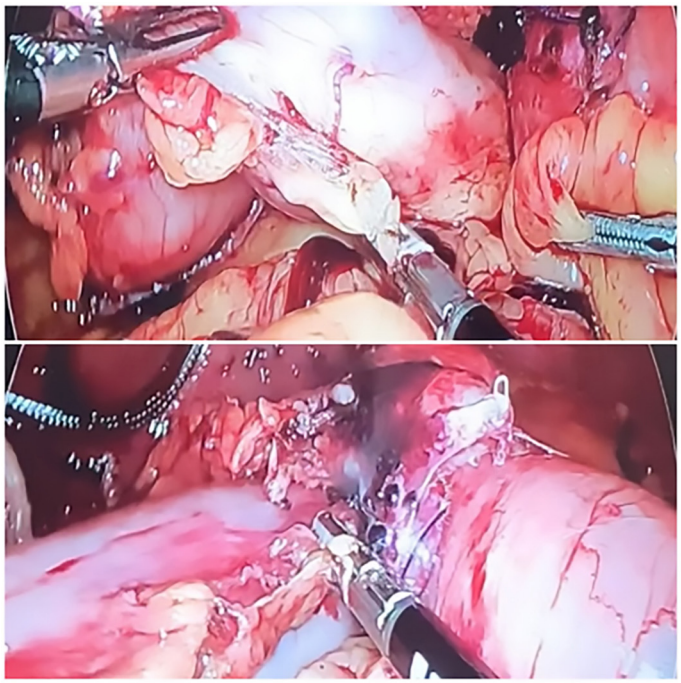

Figure 2: Resection of the stomach excluded.

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