



## Robotic Reversal of One-Anastomosis Gastric Bypass into Sleeve Gastrectomy for Severe Malnutrition: Interest of the Manual Gastro-Gastric Anastomosis?

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Malnutrition after one-anastomosis gastric bypass (OAGB) is not uncommon (0.2–10.8%) [1–4]. A 34-year-old man had a conversion of sleeve gastrectomy (SG) into OAGB in 2017 for weight regain; the preoperative weight was 160 kg and the body mass index (BMI) was 44 kg/m<sup>2</sup>. One year after OAGB, the weight loss was 40% (–64 kg, BMI = 26 kg/m<sup>2</sup>), accompanied by severe diarrhea (>10 per day) and hypoalbuminemia (23 g/L). After enteral re-nutrition and treatment of nutritional deficiencies, a robotic reversal of OAGB into SG was performed (DaVinci Xi™ system, Intuitive Surgical Inc.<sup>®</sup>, Sunnyvale, CA) to treat the malnutrition.

The OAGB setup was entirely dissected (Fig. 1a, b); the intestine was separated from the gastric tube using a horizontal stapling just below the gastro-jejunal anastomosis (GJA) with no resulting stenosis (Fig. 1c). The GJA was removed. The gastric tube was re-axed and anastomosed to the antrum by performing a manual gastro-gastric anastomosis made of two resorbable running sutures and calibrated on a 36fr tube (Fig. 2).

The postoperative period was uneventful. One month after surgery, the patient gained 8 kg. He had no diarrhea and the albumin level was 36 g/L.

This technique is a new alternative [5, 6] for reversing OAGB into SG using a robotic approach and a manual, “robust,” and reproducible anastomosis.

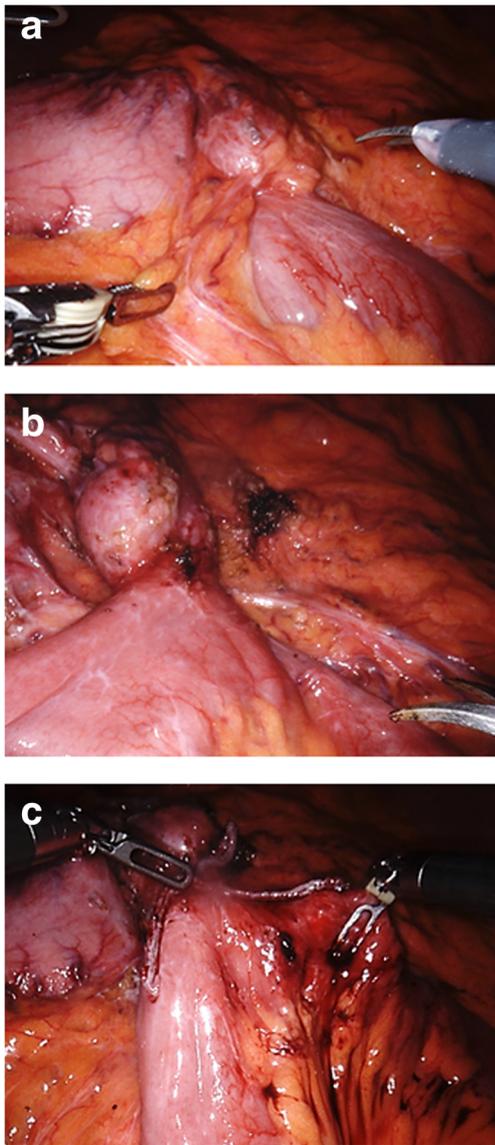
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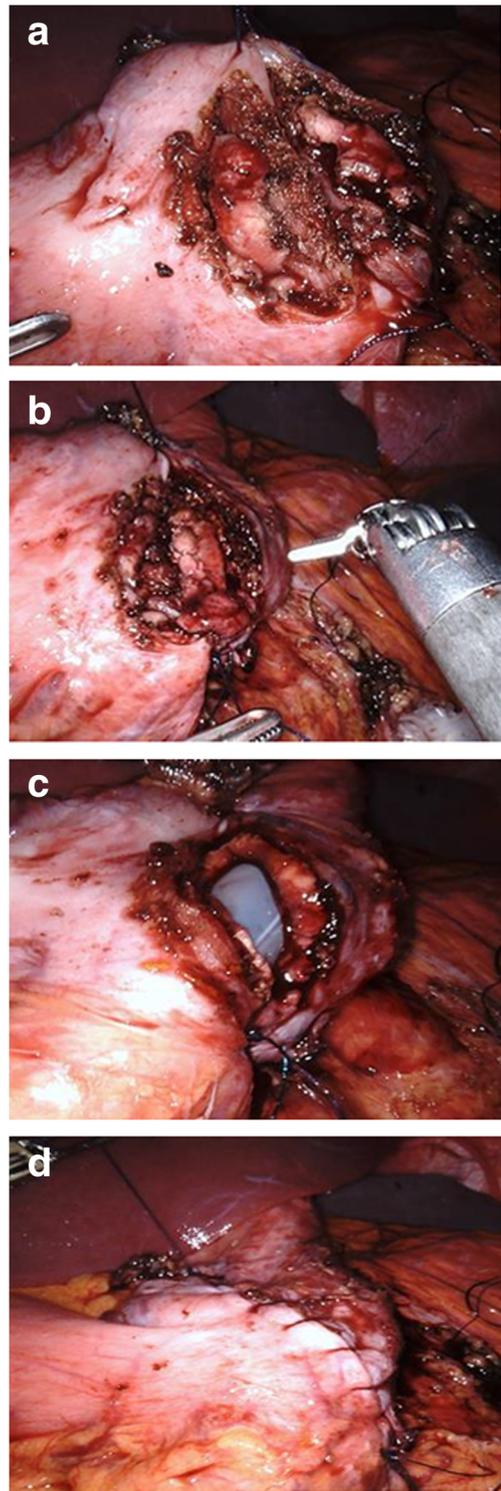
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**Fig. 1** **a** OAGB montage. **b** Dissection of the OAGB. **c** Horizontal stapling just below the GJA to separate the intestine. Surgeons must verify the absence of intestinal stenosis; then, a second stapling is fired just above the GJA to remove it. OAGB: one-anastomosis gastric bypass; GJA: gastro-jejunal anastomosis



**Fig. 2** **a** Preparation of the manual gastro-gastrostomy. **b** Running suture of the posterior wall. **c** Calibration. **d** Running suture of the anterior wall

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Considerations** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained.

## References

1. Robert M, Espalieu P, Pelascini E, et al. Efficacy and safety of one anastomosis gastric bypass versus Roux-en-Y gastric bypass for obesity (YOMEGA): a multicentre, randomised, open-label, non-inferiority trial. *Lancet*. 2019;393(10178):1299–309.
2. Chevallier JM, Arman GA, Guenzi M, et al. One thousand single anastomosis (omega loop) gastric bypasses to treat morbid obesity in a 7-year period: outcomes show few complications and good efficacy. *Obes Surg*. 2015;25(6):951–8.
3. Bruzzi M, Rau C, Voron T, et al. Single anastomosis or mini-gastric bypass: long-term results and quality of life after a 5-year follow-up. *Surg Obes Relat Dis*. 2015;11(2):321–6.
4. Genser L, Soprani A, Tabbara M, et al. Laparoscopic reversal of mini-gastric bypass to original anatomy for severe postoperative malnutrition. *Langenbeck's Arch Surg*. 2017;402:1263–70.
5. Reche F, Mancini A, Borel AL, et al. Totally robotic reversal of omega-loop gastric bypass to normal anatomy. *Obes Surg*. 2016;26:1994–5.
6. Poghosyan T, Caille C, Moszkowicz D, et al. Roux-en-Y gastric bypass for the treatment of severe complications after omega-loop gastric bypass. *Surg Obes Relat Dis*. 2017;13(6):988–94.

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