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MULTIMEDIA ARTICLE

An Alternative Technique of Reversal of Roux-en-Y Gastric Bypass: the Small Bowel Limb Transposition

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Abstract

Roux-en-Y gastric bypass (RYGB) is recently the second most frequent operation worldwide and is only preceded by sleeve gastrectomy. We present an alternative technique of reversal of RYGB. There is no need to dissect or resect the gastrojejunal anastomosis. This dissection might be difficult as the gastrojejunal anastomosis might be adherent to the residual stomach. The 2 anastomoses performed are technically easy and done on healthy non-inflammatory tissue.

Keywords Surgical technique · Roux-en-Y gastric bypass · Reversal · Denutrition

Introduction

Roux-en-Y gastric bypass (RYGB) is recently the second most frequent operation worldwide and is only preceded by sleeve gastrectomy (SG) [1]. RYGB has demonstrated to provide long-term satisfactory weight loss and to significantly improve quality of life and comorbidities [2]. However, long-term complications can happen and sometimes re-interventions are required. In very few cases, reversal to normal anatomy may be for gastric bypass malnutrition, severe dumping syndrome, postprandial hypoglycemia, excessive weight loss, and recurrent marginal ulcer [3–5].

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Methods

We present the video report of a 43-year-old woman suffering from severe malnutrition and multiple vitamin deficiencies. The patient had a RYGB 2 years ago. Her initial weight was 97 kg with a body mass index of 39 kg/m^2. She presented for multiple vitamin deficiencies and severe malnutrition despite supplementation. Her weight was 46 kg, a body mass index of 18 kg/m2, and albumin at 21 g/l. After a period of parenteral nutrition, we decided in a multidisciplinary staff to perform a reversal of the RYGB back into normal anatomy.

Result

RYGB is proven to be a safe and effective treatment of obesity and related comorbidities. However, there is a small group of patients who are unable to tolerate postoperative complications and ultimately undergo reversal procedures.

One of the controversies regarding this intervention remains the technical challenge and the need to resect the gastrojejunal anastomosis and perform a gastrogastric anastomosis on a small gastric pouch.

Discussion

We present an alternative technique of reversal of RYGB. This technique offers 3 advantages. First of all, there is no need to dissect or resect the gastrojejeunal anastomosis. This dissection might be difficult as the gastrojejunal anastomosis might be adherent to the residual stomach. Second, there is no need to do a gastrogastric anastomosis on a tissue that was dissected and at risk of devascularization, therefore, avoiding a gastric leak. Third, the 2 anastomoses performed are technically easy and done on healthy non-inflammatory tissue. In this video, we present step-by-step the reversal of RYGB. We constated that the length of the Roux limb = 150 cm, biliopancreatic limb = 50 cm, and common channel > 4 m. The operative time was 62 min. Postoperative course was uneventful and the patient was discharged on postoperative day 4.

There is a potential for marginal ulceration in the jejunum were the Roux limb is attached to the remnant of the stomach. Such a technique might complicate endoscopic access in the future and deprive the patient of other bariatric procedure.

Compliance with Ethical Standards

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

Statement of Informed Consent Informed consent was obtained from the participant included in the study.

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