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Research Article

Technical Considerations in Performing One Anastomosis Gastric Bypass In Case of Intestinal Malrotation

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Abstract

Intestinal malrotation is a rare congenital anomaly that originates from the failure of the normal rotation and fixation of the midgut during embryologic development. There are different types of Midgut Malrotation which includes non-rotation, incomplete rotation, reverse rotation, or anomalous fixation of the mesentery.

Methods: We present a case of a 58-year-old woman with a BMI of 45.3 kg/m². The patient underwent laparoscopic appendectomy 15 years ago and was diagnosed with a partial situs inversus. She has no other past medical conditions.

Results: At the operation, four meters of small bowel were counted backward from the ileocaecal valve until the duodenum. We performed a one anastomosis gastric bypass with three meters of common limb and one meter of biliopancreatic limb, gastro-intestinal anastomosis made with a linear stapler, and the defect sutured with absorbable suture.

Conclusion: One anastomosis gastric bypass is a feasible and safe alternative for morbidly obese patients with intestinal malrotation or multiple intestinal adhesions.

Key words: one anastomosis gastric bypass; intestinal malrotation, gastric bypass, laparoscopy, obesity; situs inversus

Introduction

Intestinal malrotation is a rare congenital anomaly that originates from the failure of the normal rotation and fixation of the midgut during embryologic development [1]. In adults is a very rare condition and it is more difficult to recognize due to the lack of symptoms [2]. Malrotation can present either acutely, intermittently, or asymptotically. There are different types of Midgut Malrotation which includes non-rotation, incomplete rotation, reverse rotation, or anomalous fixation of the mesentery [3]. Bariatric operations are considered the best option for losing weight in morbidly obese patients, and one anastomosis gastric bypass is now a full bariatric option by most bariatric surgeons [4, 5].

Methods

We present a case of a 58-year-old woman with a BMI of 45.3 kg/m^2 . The patient underwent laparoscopic appendectomy 15 years ago and was diagnosed with a partial situs inversus. She has no other past medical conditions.

She underwent preoperative psychological and nutritional medical evaluations, including complete blood count, electrolytes, thyroidstimulating hormone, serum cortisol, chest x-ray, electrocardiogram and abdominal ultrasound. All were without major findings. The preoperative contrast swallow test and gastroscopy were normal. Preoperatively the broad spectrum of surgical possibilities was discussed. Because of the malrotation, her feeding habits, age, and the BMI we opted for a one anastomosis gastric bypass.

Results

At the operation, four meters of small bowel were counted backward from the ileocaecal valve until the duodenum. As locating the Treitz ligament was not feasible due to multiple abdominal adhesions further on. We performed a one anastomosis gastric bypass with three meters of common limb and one meter of biliopancreatic limb, gastro-intestinal anastomosis made with a linear stapler, and the defect sutured with absorbable suture. The operation was uneventful. Postoperatively the patient was discharged in good health on day three with proper food advice.

Follow-up until 12 months the patient feeling well, no vomiting or reflux, with a BMI of 31 kg/m2 and has no complaints. Vidal et al concluded that Patients with malrotation can successfully undergo laparoscopic bariatric surgery [1]. Joana et al concluded that other bariatric option that OAGB is present in intestinal malrotation patients which is roux en Y gastric bypass [6].

Conclusion

One anastomosis gastric bypass is a feasible and safe alternative for morbidly obese patients with intestinal malrotation or multiple intestinal adhesions. More studies with a larger number of patients are needed in this field.

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