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REVIEW ARTICLE

Endoscopic management of bariatric surgery complications: what the gastroenterologist should know☆

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Abstract Obesity is a serious disorder in almost the entire world. It is an important risk factor for a series of conditions that affect and threaten health. Currently, bariatric surgery is the most effective treatment for morbid obesity, and in addition to the resulting weight loss, it reduces morbidity in this population. There has been a significant increase in the number of obese patients operated on. Despite the success of bariatric surgery, an important group of patients still present with major postoperative complications. In order for endoscopy to effectively contribute to the diagnosis and treatment of complications deriving from obesity surgery, the gastroenterologist must be aware of the particularities involved in bariatric surgery. The present article is a review of the resulting anatomic aspects of the main surgical techniques employed, the most common postoperative symptoms, the potential complications, and the possibilities that endoscopic diagnosis and treatment offer. Endoscopy is a growing and continuously evolving method in the treatment of bariatric surgery complications. The aim of this review is to contribute to the preparation of gastroenterologists so they can offer adequate endoscopic diagnosis and treatment to this high-risk population.

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PALABRAS CLAVE
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Manejo endoscópico de las complicaciones en la cirugía bariátrica: lo que el gastroenterólogo debe saber

Resumen La obesidad es un transtorno grave en casi todo el mundo. Representa un importante factor de riesgo para una serie de condiciones que afectan y amenazan la salud. En la actualidad, la cirugía bariátrica es el tratamiento más eficaz de la obesidad mórbida y resulta además de la pérdida de peso en la redución de morbilidad en esta población. El número de pacientes obesos operados se ha incrementado significativamente. A pesar del éxito de la cirugía bariátrica, un grupo de pacientes presentará complicaciones mayores en el postoperatorio. Para que la endoscopia contribuya en el diagnóstico y tratamiento de las complicaciones de la cirugía de la obesidad, es necesario que el gastroenterólogo esté familiarizado con las particularidades de la cirugía bariátrica. En el presente artículo revisamos los aspectos anatómicos resultantes de las principales técnicas quirúrgicas empleadas, los síntomas más comunes en el postoperatorio, las ponteciales complicaciones y las posibilidades de diagnóstico y de tratamiento endoscópico. La endoscopia, en el tratamiento de las complicaciones de la cirugía bariátrica, es un área que está en crecimiento y en continua evolución. El objetivo de esta revisión es contribuir para la preparación de los gastroenterólogos para que ofrezcan diagnóstico y tratamiento endoscópico adecuado a esta población de alto riesgo.

Introduction

The prevalence of obese patients has increased worldwide[1]. Obesity is associated with a series of conditions that threaten health, and therefore is a serious public health problem[2,3]. Clinical treatment has no long-term satisfaction for an important fraction of obese patients[4,5]. Surgical treatment is considered efficacious in relation to weight loss, maintaining that loss, and improving long-term morbidities[6,7]. The number of bariatric surgeries has increased systematically each year[8]. Bariatric surgery has a mortality rate lower than 1% in referral centers[9], with an estimated 5-10% of the patients having acute complications and 9-25% late complications[10]. Endoscopic study after obesity surgery has well-defined indications for symptom evaluation, the diagnosis of complications, and eventually for therapeutic procedures[11,12]. In order for endoscopic study to contribute to the diagnosis and treatment of complications deriving from obesity surgery, adequate knowledge of the anatomic aspects resulting from the surgical techniques employed is necessary, as well as their potential complications and management[13,14].

Endoscopic aspects of banded Roux-en-Y gastric bypass (Capella surgery)

For many years, the most widely used technique was the Capella surgery[15], in which the stomach is stapled and sectioned forming a small reservoir next to the cardia, called the gastric pouch. The rest of the stomach, duodenum, and part of the proximal jejunum are excluded from food transit. It is reconstituted with an end-to-side anastomosis between the gastric pouch and a Roux-en-Y loop of the jejunal segment (fig. 1). At endoscopy, the gastric pouch begins just below the esophagogastric transition and extends for 5-7 cm. Sometimes the suture line of the gastric section can be seen. A synthetic band is placed externally around the pouch to limit its emptying, and when examined endoscopically, it is viewed as a 12 mm annular impression at the most distal portion of the pouch. The gastrojejunal anastomosis has a

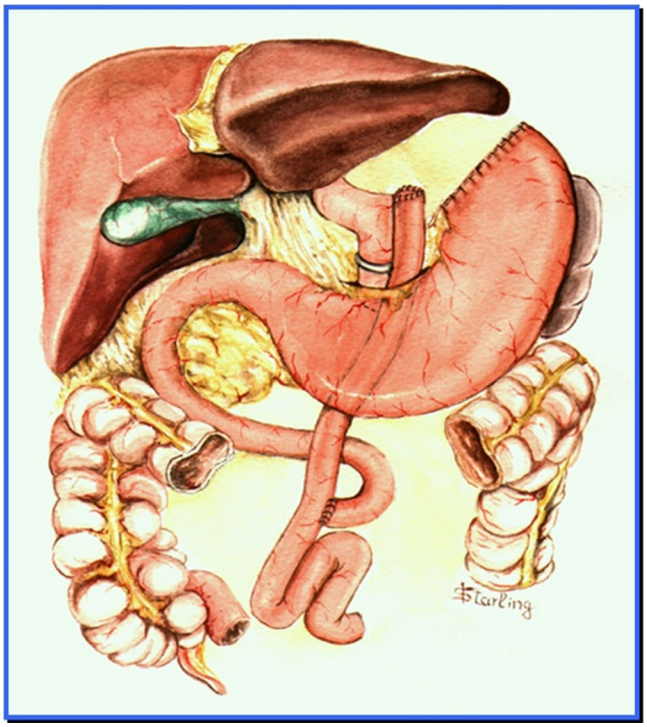

Figure 1 Anatomic aspect of banded Roux-en-Y gastric bypass (Capella).