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A. Indications

Laparoscopic Roux-en-Y gastric bypass in the super-super obese (BMI >60 kg/m²) population can be challenging. Factors that contribute to the technical difficulty include male gender, android body habitus, and high BMI. Men often have an android body habitus with high content of visceral fat, which increases intra-abdominal pressure and reduces intraoperative laparoscopic visualization. In addition, android body habitus and high BMI are often associated with fatty liver disease and enlarged liver lobes that may obscure visualization of the gastroesophageal junction. All of these factors can contribute to the degree of intraoperative technical difficulty and should be weighed in the selection of appropriate patients to undergo laparoscopic gastric bypass.

Although a high BMI is not in itself a contraindication to surgery, laparoscopic gastric bypass in the super-super obese can be associated with a higher morbidity and mortality. In an effort to minimize perioperative morbidity, the concept of a two-stage operation was developed. The initial two-stage procedure consists of a sleeve gastrectomy (first stage) followed by an interval Roux-en-Y gastric bypass or duodenal switch. However, the sleeve gastrectomy can still be challenging in the super-super obese, particularly in patients with an enlarged liver from nonalcoholic steatohepatitis or liver cirrhosis obscuring visualization of the gastroesophageal junction near the angle of His. The alternative two-stage procedure is the staged Roux-en-Y, which consists of a modified Roux-en-Y operation with construction of a larger gastric pouch and a low gastrojejunal anastomosis. Construction of a large gastric pouch avoids the difficult dissection of the angle of His. The construction of a low gastrojejunal anastomosis minimizes tension on the anastomosis and hence reduces the chance for leaks. In the second stage, 6 to 12 months later, the volume of the gastric pouch is reduced by performing a sleeve gastrectomy of the gastric fundus.

B. Patient Position and Room Setup

1. Position the patient supine with both arms to the side. A foot board should be placed. The patient’s legs should be secured to prevent the patient from sliding during reverse Trendelenburg position.
2. Place the video monitors at the patient’s left and right shoulder.
3. Place a Foley catheter.
4. The sequential compression device should be active during anesthetic induction.
5. Antibiotics should be given.

C. Trocar Position and Choice of Laparoscope

1. The surgeon stands on the patient’s right side. The assistant surgeon stands on the patient’s left side.
2. Place the Veress needle at the left mid-clavicular position above the umbilicus.
3. The first trocar (11-mm) is inserted at this site.
4. Four additional abdominal trocars are placed (one 12-mm and three 5-mm trocars), as shown in Fig. 16.1.
5. A 45-degree angle laparoscope should be used.

D. Laparoscopic Staged Roux-en-Y (First Stage)

1. The operation begins with construction of the jejunojejunostomy.
2. Identify the ligament of Treitz and divide the jejunum 40-cm distally with a linear stapler (blue load). The jejunum mesentery is divided with a linear stapler (gray load).
3. The Roux limb is measured at 150-cm. The base of the Roux limb is fashioned to the jejunal biliopancreatic limb. A side-to-side jejunojejunostomy is constructed using a 60-mm linear stapler (white load). The remaining jejunal defect is closed with a running, two-layer closure. The small bowel mesenteric defect is closed with a running suture.
4. The greater omentum is divided to provide an antecolic path for the Roux limb.
5. The patient is switched to a reverse Trendelenburg position.
6. The hepatogastric ligament, close to the lesser curvature of the stomach, is divided using a linear stapler (gray load). An anterior gastrotomy is made low on the lesser curvature. The 25-mm anvil is inserted transabdominally and placed through the gastrotomy and positioned on the anterior gastric wall approximately 4 or 5 cm distal to the gastroesophageal junction. The stomach is divided starting on the lesser curvature and completed on the greater curvature (Fig. 16.2a).
7. Pass the end of the Roux limb, on an antecolic path, into proximity to the gastric pouch, taking care to avoid twisting of the mesentery.
8. The gastrojejunal anastomosis is constructed with a 25-mm circular stapler. The circular stapler is inserted transabdominally and then positioned through the end of the Roux limb. The surgeon connects the anvil with the stapler to construct the gastrojejunalostomy. The end of the Roux limb is closed with a linear stapler (blue load).