Roux-en-Y Gastric Bypass Review

Gastric bypass is created by attaching a pouch made from the lesser curvature of the stomach to a limb of the small bowel. The small, lesser curve gastric pouch is 15-50 ml. The remaining portion of the stomach and the duodenum are bypassed. The new stomach outlet is a limb of small bowel of varying lengths anastomosed to a section of jejunum. This new connection to the stomach is called a Roux-en-Y limb because of its shape. The Roux limb allows food to bypass the duodenum as well as the first portion of the jejunum. This causes reduced calorie and nutrient absorption.

Different Approaches

- Antecolic-Antegastric: Front of colon and stomach (most common)
- Retecolic-Retrogastric: Behind colon and stomach
- Antecolic-Retrogastric: Front of colon and behind stomach
- Retecolic-Antegastric: Behind colon and front of stomach

Procedural Steps

- Surgeons may begin the procedure at the stomach or by creating the Roux limb with the small bowel. This discussion begins at the stomach.
- Create an opening (window) in the lesser omentum near the gastric wall at the lesser curvature of the stomach in order to place a stapler onto the stomach. Perigastric dissection occurs along lesser curve of stomach to retrogastric space.
- To provide sufficient space for staple placement or mobility of the stomach, identify the angle of His and dissect or divide the short gastric vessels as necessary.
- Gastric pouch formation may begin with a transverse staple line followed by a vertical staple line.
- To create the Roux limb, transect the small bowel. Distal limb will be brought up to stomach; proximal limb (jejunum) will be reattached to the small bowel. Identify ligament of Trietz jejunum is advanced and measured then transected with stapler.
- To mobilize the Roux limb, division of the mesentery may be necessary. Divide the mesentery to its base.
- Measure the Roux limb distally (about 75 cm); a side-to-side or end to-side anastomosis of the distal end of the jejunal small bowel to distal small bowel (jejunoojejunostomy) is created. Prior to the anastomosis, two enterotomies will be created.
- Pass the Roux limb up toward the gastric pouch.
  - Retrocolic approach – Lift the omentum to expose the mesentery to the transverse colon near the ligament of Trietz. Create a window in the mesentery, pass the Roux limb, retrocolic, to the gastric pouch.
  - Anticolic approach – Pass the Roux limb over the colon to the stomach. Sometimes the omentum is split to facilitate passage of the limb to the gastric pouch.
- Create gastrojejunostomy (gastric pouch to jejunum) anastomosis.
  - Retrogastric – anastomosis behind the stomach
  - Antegastric – anastomosis to front of the stomach
  (Prior to the anastomosis, an enterotomy and gastrotomy will be made)

Typical Instruments

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<th>Open</th>
<th>Laparoscopic</th>
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<tbody>
<tr>
<td>Electrosurgical</td>
<td>E1455-6 Insulated EDGE™ coated blade extended electrode</td>
<td>E3773-36C CleanCoat™ wire L-hook (36C)</td>
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<tr>
<td></td>
<td>FT3000 Force TriVerse™ electrosurgical device</td>
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<tr>
<td>Tissue Fusion</td>
<td>LF4418 Ligasure™ Impact Device</td>
<td>LF1937 Ligasure™ Maryland</td>
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<td>LF1937 Ligasure™ Maryland Device LF1837</td>
<td>LF1837 Ligasure™ Blunt Tip</td>
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<td>Ligasure™ Blunt tip</td>
<td>Ligasure™ Hook</td>
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ROUX-EN-Y GASTRIC BYPASS
BRIEF ANATOMY REVIEW

The stomach can hold about three pints of food at one time. When the stomach contents move to the duodenum, the first segment of the small intestine (about 11 inches or 28 cm long), bile and pancreatic juices speed up digestion. Most of the iron and calcium in the food is absorbed in the duodenum. The jejunum (about 7 ½ feet or 213 cm long) and the ileum (11 ½ feet or 335 cm long) — the remaining two segments of the small intestine — complete the absorption of the remaining nutrients and calories.

- Small intestine 23 feet or 7 m long
- Duodenum stabilized by the pancreas and the posterior parietal peritoneum
- Duodenojejunal angle is stabilized by the ligament of Treitz
- Jejunum and ileum are suspended by the mesentery that is attached to the posterior abdominal wall

For more information, please visit medtronic.eu/product-catalog

IMPORTANT: Please refer to the package insert for complete instructions, contraindications, warnings and precautions.

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