Technical Aspects of the Mini-Gastric Bypass

2016 Duke Masters of Minimally Invasive Bariatric Surgery
May 7, 2016

David E. Hargroder, M.D.
Mercy Hospital, Joplin, MO
Mercy McCune Brooks Hospital, Carthage, MO
Mini-Gastric Bypass
Robert Rutledge
1997

One Anastomosis Gastric Bypass
Manuel Garcia Caballero
Miguel A Carbajo
2004

Mason Procedure
Modification of Two General Surgery Procedures

- Collis gastroplasty
- Antrectomy / Distal Gastrectomy and Antecolic Billroth II Gastro-enterostomy
Operative Technique

Patient Position and Placement of Trochars

- Supine Position
- Surgeon stands on right side
- Steep reverse Trendelenburg
- Extreme right tilt
- 5 ports placed in Diamond Shape pattern upper abdomen
Creation of the Gastric Pouch

- Long pouch (12-15 cm)
  - Just beyond Crow’s Feet
  - 3 – 4 cm proximal to pylorus
- Created along Lesser Curve
- 36 Fr Bougie
- Avoid twisting
- Non-Obstructive
Operative Technique

Management of GE junction

- Avoid the GE Junction
- Dissect away from the Angle of His
Operative Technique

Length of Bilio-Pancreatic Limb

- BMI 30 – 60: 180 – 200 cm
- BMI 60 – 80: 200 – 250 cm

Adjust according to patients fears and expectations

New MGB Surgeons (<200 cases) should be conservative
Operative Technique

Creation of Gastro-Jejunostomy

1. Gastrostomy created anterior to staple line
2. Camera changed from lower midline port to far right subcostal port.
3. Jejunostomy on anti-mesenteric margin
4. 45 mm medium load inserted into jejunostomy then gastrostomy.
5. Bougie passed across anastomosis
6. Endo-GIA closure of remaining defect
7. Leak test
FEATURES OF THE MINI-GASTRIC BYPASS

- Technical Simplicity (single anastomosis)
- Short operating time (avg. 47 min)
- Easily reversible or revisable
- Superior weight loss (average 75% excess weight loss)
- Weight loss maintained >10 years
- Comorbidity resolution maintained >10 years
EARLY (SURGICAL) COMPLICATIONS

<table>
<thead>
<tr>
<th>Complication</th>
<th>Number N=1116</th>
<th>Range (days)</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staple Line Leak</td>
<td>9</td>
<td>0 – 5</td>
<td>0.84%</td>
</tr>
<tr>
<td>Hemorrhage</td>
<td>10</td>
<td>0 – 3</td>
<td>0.93%</td>
</tr>
<tr>
<td>Small Bowel Injury</td>
<td>6</td>
<td>0 – 1</td>
<td>0.56%</td>
</tr>
<tr>
<td>Gastric Outlet Obstruction</td>
<td>1</td>
<td>5</td>
<td>0.09%</td>
</tr>
<tr>
<td>Distal Small Bowel Obstruction</td>
<td>1</td>
<td>1</td>
<td>0.09%</td>
</tr>
<tr>
<td>Negative DLE</td>
<td>8</td>
<td>0 – 3</td>
<td>0.75%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>38</strong></td>
<td><strong>0 – 5</strong></td>
<td><strong>3.57%</strong></td>
</tr>
</tbody>
</table>

Results from personal experience based on medical records, online questionnaire, and in house data base.
## Late Complications Requiring Surgery

<table>
<thead>
<tr>
<th>Complication</th>
<th>Number (N=1116)</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive Weight Loss</td>
<td>9</td>
<td>0.8%</td>
</tr>
<tr>
<td>Inadequate Weight Loss</td>
<td>11</td>
<td>1%</td>
</tr>
<tr>
<td>Ulcer with perforation</td>
<td>10</td>
<td>0.9%</td>
</tr>
<tr>
<td>Ulcer with stricture</td>
<td>6</td>
<td>0.6%</td>
</tr>
<tr>
<td>GERD</td>
<td>3</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>39</strong></td>
<td><strong>3.6%</strong></td>
</tr>
</tbody>
</table>

Results from personal experience based on medical records, online questionnaire, and in house data base.
LATE COMPLICATIONS
VITAMIN AND MINERAL DEFICIENCY

N = 547

27 percent reported Vitamin and Mineral deficiencies.

- Calcium
- Vitamin D
- Iron
- B12
- Potassium
- Copper

Results from personal experience based on medical records, online questionnaire, and in house data base.
Results from personal experience based on medical records, online questionnaire, and in house database.