“One anastomosis gastric bypass” versus “Roux en Y gastric bypass” as salvage technique after failed gastric band: a retrospective analysis of 80 cases

Rui Ribeiro; Octávio Viveiros; Anabela Guerra; Leonor Manaças; João Pereira
Centro Hospitalar de Lisboa Central, Hospital de S. José, Serviço de Cirurgia 1
Lisboa, Portugal

Rational: After the first description in 1997 by Robert Rutledge, the minigastric bypass or, accordingly to some Spanish authors, One Anastomosis Gastric Bypass (OAGBP) has become a progressively more accepted bariatric technique by different surgeons all over the world with increasing evidence of excellent outcomes at least equivalent to the Roux en Y Gastric Bypass ones. We have been using OAGBP also as a revisional technique in cases of failed or complicated gastric bandings.

In this retrospective study we compare the outcomes of 80 revised patients, 40 under each of the techniques trying to learn the differences about safety and efficacy outcomes.

OAGBP theoretical advantages facing RYGBP
Safer: less leaks and hemorrhages
Quicker (depending on used technique)
Wide GI: better food tolerance
Adjustable (good for thin T2DM patients)
Less hyperinsulinemic hypoglicemia
Better long run weight loss and T2DM control
Readjustable and easily reversible
Technically easier as a salvage procedure

OAGBP technical advantages as salvage procedure
Lower anastomosis (less tension)
Better anastomotic vascularization (long tube)
Gastrojejunostomy far from the band scar tissue
Larger anastomosis => no pressure => no leaks
Antireflux stitches => jejunal patch

Demography
80 patients (23/4/2010 up to 12/3/2013)
Average FU: 14,7 months
Average age: 49,5 years [28–73];
Conversion type: One step: 31 ; Two steps: 49 pts
Associated operations: 2 cruroplasties
Conversion to laparotomy: 1 pt (massive adhesions)
Associated pathology: 70 pts (87,5%)

<table>
<thead>
<tr>
<th></th>
<th>OAGBP</th>
<th>RYGBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE (years)</td>
<td>48,7</td>
<td>50,4</td>
</tr>
<tr>
<td>Women/men</td>
<td>37/3</td>
<td>40/0</td>
</tr>
<tr>
<td>Weight (Kg)</td>
<td>115,6</td>
<td>105,7</td>
</tr>
<tr>
<td>Height (m)</td>
<td>1,60</td>
<td>1,61</td>
</tr>
<tr>
<td>BMI (Kg/m2)</td>
<td>44,9</td>
<td>40,8</td>
</tr>
</tbody>
</table>

Comorbidities evolution

Conclusions
Main indications for gastric bypass as a salvage procedure were GE reflux (11%), slippage (31%) and weight regain (44%)
87,5% had still important comorbidities
Despite initial higher BMI OAGBP had half of the intra-op. and post-op. complications (5% vs 10%)
OAGBP had greater %BMIIL after 24 p.o. month
Comorbidities control was better:
- For OAGBP in T2DM, AHT, DJD and depression
- For RYGBP in dyslipidemia and Sleep Apnea S.
OAGBP induced more B9 and B12 deficit + ↑ PTH
RYGBP induced more Fe, Ferritin and Mg deficit
OAGBP induced 5 cases of GERD (3 reoperations)
RYGBP induced more cases of obstipation (3 cases)

OAGBP claimed disadvantages facing RYGBP
Gastric cancer risk (no scientific evidence... a myth?)
Gastric biliary reflux /esophageal biliary reflux
Increased ferropenic anemia
Increased anastomotic ulcer/perforation rate

OAGBP conceptual advantages
One anastomosis only
=> easy to revise (aferent limb length ↑ or ↓)
=> easy to reverse to normal anatomy
Induced steathorrea
=> added mechanism of action
Thin anti-reflux gastric tube
=> some restriction but better alimentary tolerance
No mesenteric torsions
=> no defects => reduced risks of internal hernia
No alimentary limb
=> reduced “early dumping” rate

Complications

<table>
<thead>
<tr>
<th></th>
<th>RYGBP</th>
<th>OAGBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-operative complications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lost needle</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Mistapling</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Gastrotomy</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pleurectomy</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4 (10%)</td>
<td>2 (5%)</td>
</tr>
<tr>
<td>Post-operative complications (&lt;30d)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seroma</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bandage alergy</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Vomiting</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hematic drainage</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Buttocks bruising</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4 (10%)</td>
<td>2 (5%)</td>
</tr>
</tbody>
</table>

% Nutritional deficits and other issues