Weight regain after Sleeve Gastrectomy - Re-sleeve, DS

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Overview

- Long term results after SG
- Weight regain after SG
- Re Sleeve
- Duodenal Switch
Introduction

- SG is presently the commonest bariatric procedure
- Less complex technically
- Lesser alteration of body physiology vis. a vis. RYGB / DS
- Relatively new
Long term results after SG*

- %EWL at 5 years: 58.4%
- Resolution / improvement of T2DM: 77.8%
- Improvement in Hypertension: 68%
- De-novo GERD: 10-23%

Definition of weight regain after SG

Definition determines weight regain outcomes after sleeve gastrectomy

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**Definition**

I. An increase of > 10 kg from nadir (6)
II. An increase of > 25% EWL from nadir (2)
III. An increase in BMI of 5 kg/m² from nadir (1)
IV. Any weight regain after T2D remission (1)
V. Weight regain to a BMI > 35 kg/m² after successful loss (1)
VI. Any weight regain (1)

% EWL = percent excess weight loss; BMI = body mass index; m = meters; T2D = type 2 diabetes.
Causes of weight regain*

- Technical factors in primary sleeve:
  - Bougie size
  - Leaving fundal remnant
  - Size of antral remnant

- Sleeve dilatation

- Ghrelin levels

- Follow up support

- Lifestyle behaviours

*Obes Surg 2016;26:1326-34
The Magnitude of Antral Resection in Laparoscopic Sleeve Gastrectomy and its Relationship to Excess Weight Loss

Firas Obeidat · Hiba Shanti · Ayman Mismar · Nader Albsoul · Mohammad Al-Qudah
# Sleeve Gastrectomy

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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</thead>
<tbody>
<tr>
<td>✷ No marginal ulcer</td>
<td>✷ Leak</td>
</tr>
<tr>
<td>✷ No malabsorption</td>
<td>✷ Stricture</td>
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<tr>
<td>✷ Little dumping</td>
<td>✷ New onset GERD</td>
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<tr>
<td>✷ Good weight loss</td>
<td></td>
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<td>✷ Can be converted easily</td>
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Re-Sleeve

- Restrictive procedure for failed restriction
- Not very promising results
- High complication rate, esp. leak

Pre-operative assessment:
- Gastroscopy and
- Upper GI series
- CT volumetry
Potential indications

- If primary SG was badly done
  - Large fundal remnant
  - Large sleeve volume with large antrum

- Patient able to eat good volume of food, without GERD

- Patient not willing for anastomotic bariatric procedure
Re-Sleeve Video
RYGB

- Already discussed by Dr. Brethauer
Duodenal Switch

- SG first step in a staged DS
- A person who fails SG has one last golden opportunity
- Patients failing SG are likely to fail less aggressive procedures like RYGB
- In patients with GERD, RYGB may be a better option
Advantages of DS

- Avoidance of entrance into scarred area of stomach
- Reversibility of malabsorptive component
- Better resolution of T2DM, HTN, dyslipidemia
- Better weight loss
Disadvantages of DS

- Longer duration and technically difficult
  - Need to assess anesthesia risk.

- GERD not resolved

- Malabsorption can be severe, requires good follow up

- Previous bowel surgery may be a contraindication
Technical factors: DS

- Generous sleeve preferred (in view of malabsorptive procedure)

- Re-SG done only if dilated sleeve / large fundus remnant

- 150 cm alimentary limb, 100 cm common channel
Sleeve to DS using Robot

Video
Other options

- Loop DS (SADI / SIPS)
- DJB
- JIB
- Ileal interposition
- Band
- Bipartition
- Endoluminal sleeve plication
Conclusions

❖ Performing a good primary sleeve can’t be over-emphasised

❖ Thorough pre-op. assessment has to be done before revision

❖ Duodenal Switch is an attractive option to tackle weight regain after SG
Conclusions

- Re-sleeve has limited indications, and relatively poor results

- RYGB to be preferred if GERD is a problem

- Post-op compliance & follow up is of utmost importance
Thank you