Laparoscopic Adjustable Gastric Banding (LAGB)

As An Option For Failed Gastric Bypass Procedure In Obese Patients

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DISCLOSURES

- Drs. Ali Hazrati, Patrick Yau and Jamie Cyriac are bariatric surgeons, consultants, and scientific advisory board members for Slimband.
- Dr. S. Ehsan Nikzad is a research fellow and a member of the research committee at Slimband.
- The authors have no conflicts of interest or financial ties to disclose except the travel grants that they received for the conference presentation.
INTRODUCTION

- After Roux-en-Y gastric bypass (RYGB), a significant number of patients do not achieve successful long term weight loss. In cases of failed bypass, laparoscopic adjustable gastric banding (LAGB) could prevent regaining weight or increase weight loss.
- The objective of this study is evaluating safety, efficacy, and outcomes of LAGB in this category of patients.

METHODS

- All the patients with a previous gastric bypass surgery who underwent LAGB in our center from January 2011 to January 2013 were re-evaluated.
- The study was focused on:
  - Demographics
  - Post-banding complications
  - Changes in BMI at the time of revision and 15-18 months after banding alongside the effect of banding on co-morbidities.

SURGICAL TECHNIQUE

- At GJ anastomosis, a Slimband® was placed around the pouch 1-2 cm below the esophagogastric junction through an opening in the lesser omentum. A 2:0 silk anchoring suture was used to secure the band to the crurae.
## The Study

**Focus of the Study**
- Demographics
- BMI changes
- Effect of banding on co-morbidities
- Complications

**Number of Patients**
- 23

**Time Period**
- January 2011 to January 2013

## Failed Bypass

Failure after RYGB was defined as either persistent morbid obesity using NIH criteria of a BMI > 40 or > 35 with high-risk co-morbid conditions after previous RYGB.
In total, 23 patients underwent LAGB after a failed bypass. After excluding 8 patients because of procedure incompletion (n=1) and loss of contact (n=7), data of 15 patients was included in the study.

RESULTS

AVERAGE AGE
50.5 years (42-62)

FEMALE/MALE RATIO
100% female
BMI CHANGES

- Average BMI at the time of Bypass: 52
- Average BMI at the time of Revision/Banding: 40.5
- Average BMI 15 to 18 months following Banding: 36.6

AVERAGE %EWL

- %EWL after Bypass: 32.8%
  Average Interval: 12.5 ± 5 years
- %EWL after LAGB only: 26.9%

COMPLICATIONS
Among the 15 patients whose data was included in the study, port relocation was performed in 3 cases, 3 to 6 months after primary procedure, due to port flips.
Frequency of co-morbidities prior to revision/banding

**PRE-OPERATION DATA**

- GERD: 53% (8/15)
- High Cholesterol: 6% (1/15)
- Sleep Apnea: 26% (4/15)
- Hypertension: 13% (2/15)
- Diabetes: 13% (2/15)

Status of co-morbidities after 15 to 18 months

**POST-BANDING FOLLOW-UP**

- Diabetes: 50% (50% No Change, 100% Improved)
- Hypertension: 100% (100% No Change, 100% Improved)
- Hypercholesterolemia: 100% (100% No Change, 100% Improved)
- Sleep Apnea: 25% (25% No Change, 75% Improved)
- GERD: 50% (50% No Change, 50% Improved)

Legend:
- No Change
- Resolved
- Improved
### SUMMARY

<table>
<thead>
<tr>
<th>Author &amp; Year</th>
<th>Patients</th>
<th>FU (mos)</th>
<th>BMI</th>
<th>%EBMIL</th>
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<th>Band</th>
<th>Complications</th>
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(Source: G. H. E. J. Vijgen et al., Salvage banding for failed Roux-en-Y gastric bypass; Surgery for Obesity and Related Diseases 8 (2012) 803-808)

### OTHER STUDIES (CONT'D)

- **High Cholesterol (n=4)**: 50%
- **Hypertension (n=5)**: 40%
- **Diabetes (n=3)**: 100%

28 months post revision (r-en-y) follow-up data on co-morbidities

**MEESTER ET AL. 2012:**
Data from patients who underwent RYGB after failed Banding (band kept in place)

(Source: B. Meesters et al., Roux-en-Y gastric bypass as revisional procedure after gastric banding leaving the band in place; Surgery for Obesity and Related Diseases 8 (2012) 717-723)
OTHER STUDIES (CONT’D)

- 134 banded LRYGB cases were compared to a matched cohort (age, gender, and preoperative BMI) of standard LRYGB.
- At 24 months postoperatively, the average %EWL was reported significantly higher in banded bypass patients and the difference was more pronounced in super-obese patients.
- They found no difference in early or late complications between the two groups.

HENEGHAN, SCHAUER ET AL. 2014
Matched cohort analysis between the patients who had banded LRYGB and non-banded (standard) LRYGB

CONCLUSION

- Our results suggest that in cases of failed RYGB, LAGB is a feasible and effective salvage procedure with minimal complications and morbidity rate, being done by an experienced surgeon.
- Further prospective studies with higher number of patients may still be necessary for achieving more accurate results.