



CIRURGIA REVISIONAL POR PERDA INADEQUADA DE PESO

# Qual é a melhor revisão para gastrectomia vertical?

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Hospital Universitari de Bellvitge

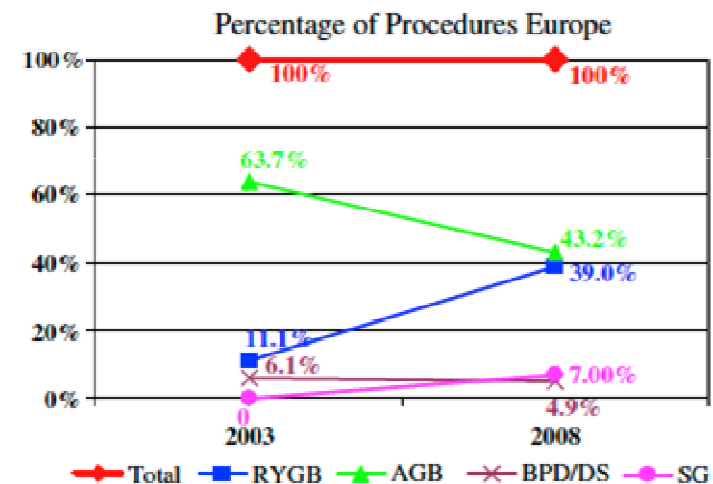
Barcelona



# Sleeve Gastrectomy in Europe

**Table 5** Regional trend Europe

	Number (Percentage) 2003	Operations (Percentage) 2008	Change (Percentage)
Total	33,771	66,769	+97.7
RYGB	3,744 (11.1)	26,023 (39.0)	+595.1
AGB	21,496 (63.7)	28,843 (43.2)	+34.2
BPD/DS	2,061 (6.1)	3,270 (4.9)	+58.7
SG	0 (0.0)	4,677 (7.0)	

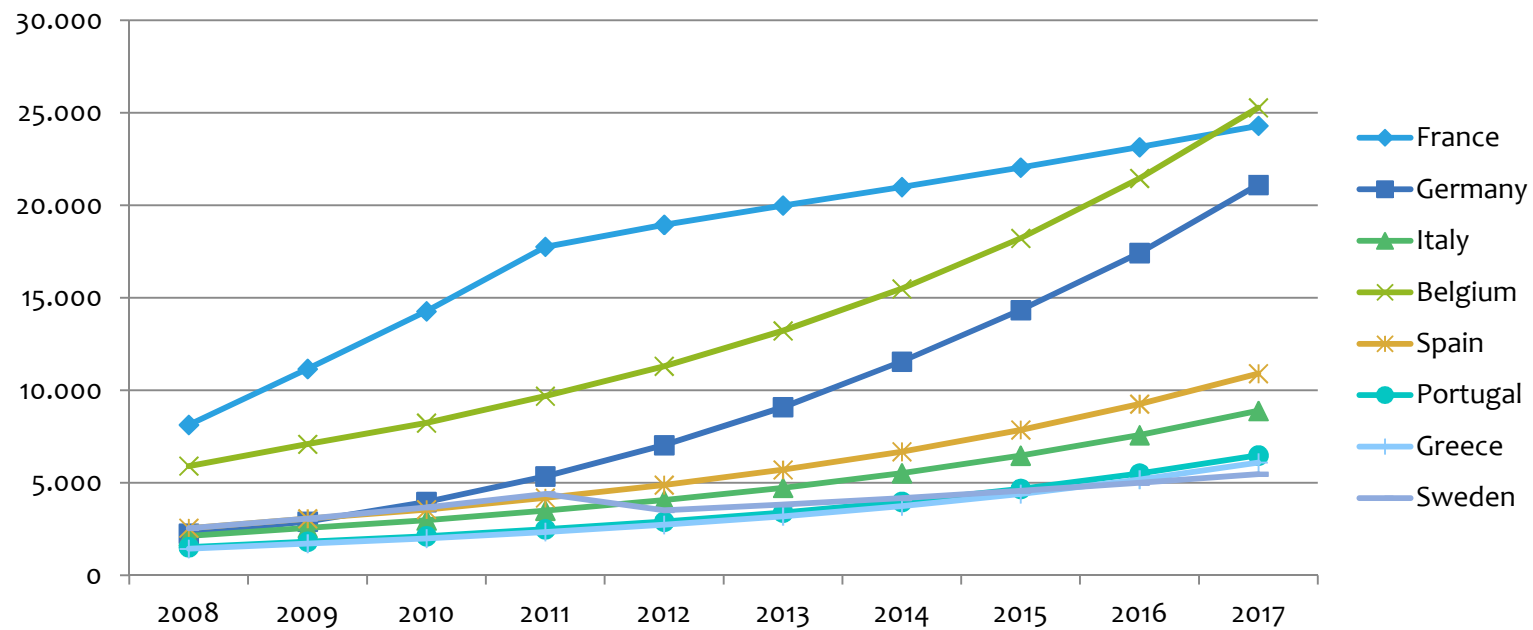


Metabolic/Bariatric Surgery Worldwide 2008

Henry Buchwald • Danette M. Oien

# Trends in Bariatric Surgery

Future Trends of Sleeve Gastrectomy



# Long Term Results of Sleeve Gastrectomy

- \* Up to 47%-64% fail in weight loss
- \* Complications
  - \* Vomiting 18% - 21%
  - \* GE Reflux 23 - 26%

**TABLE 2.** Objective Success After 3 yr, Intention-to-Treat After Stand-Alone Sleeve Gastrectomy

	Success	Failure
Evaluated patients; n = 41	n = 28; LSG: >50% EWL	n = 13; *LSG: <50% EWL; n = 2; *LSG + DS; n = 11
No evaluation possible; n = 12		n = 12; *Lost for follow-up: n = 4; *Refused cooperation: n = 8
Total: 53	28/53; 53%	25/53; 47%

LSG indicates laparoscopic sleeve gastrectomy; EWL, excessive weight loss; DS, duodenal switch.

**TABLE 3.** Objective Success After 6 yr, Intention-to-Treat After Stand-Alone Sleeve Gastrectomy

	Success	Failure
Evaluated Patients; n = 41	n = 19; LSG: >50% EWL	n = 22; *LSG: <50% EWL; n = 11; *LSG + DS; n = 11
No evaluation possible; n = 12		n = 12; *Lost for follow-up: n = 4; *Refused cooperation: n = 8
Total: 53	19/53; 36%	32/53; 64%

LSG indicates laparoscopic sleeve gastrectomy; EWL, excessive weight loss; DS, duodenal switch.

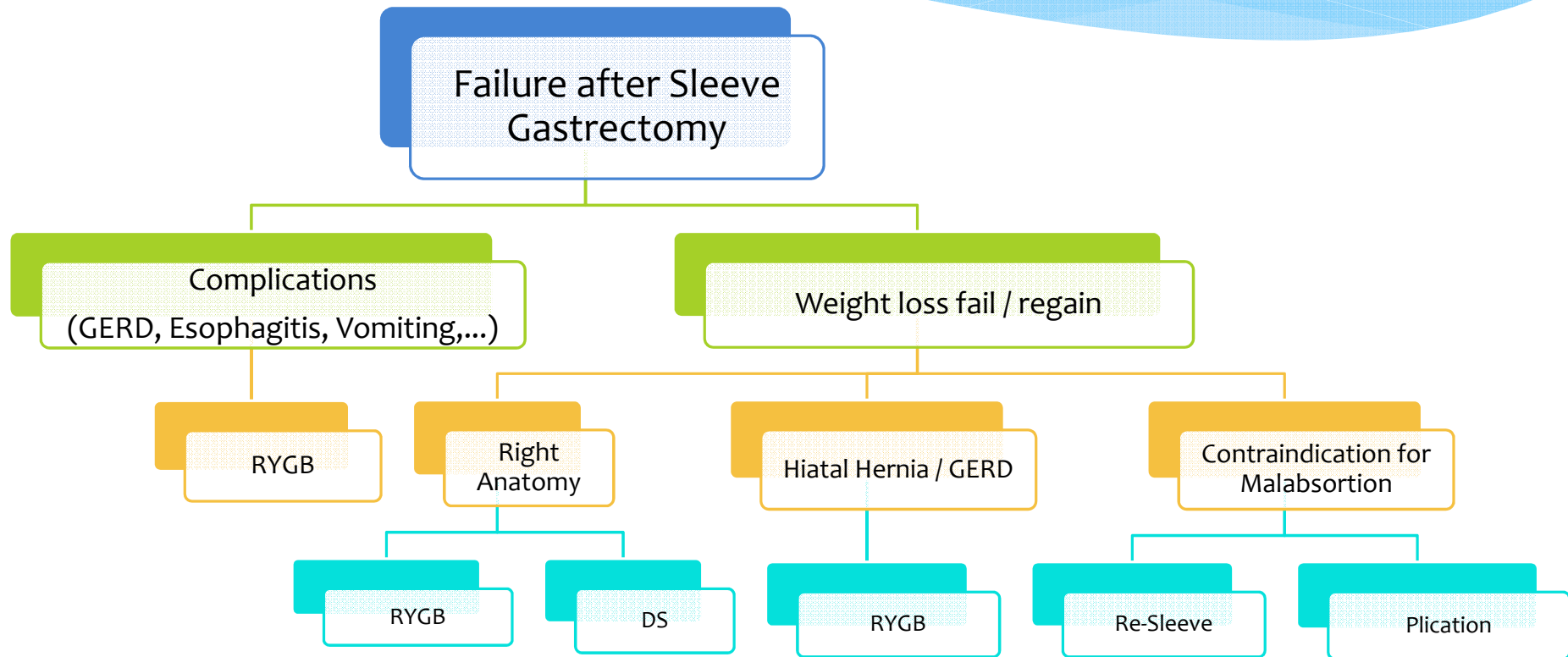
# Why does SG Fail?

- \* Inadequate procedure selection
- \* Defects in original technique
- \* Poor patient behavior

# How to evaluate it

1. Clinical examination
  1. Nutritionist
  2. Psychologist
2. GE Swallow
  1. Form and size of the gastric sleeve
  2. Anatomy of the GE junction
3. Upper GI Endoscopy
  1. Screening for esophagitis
  2. Screening for stenosis of the gastric sleeve
4. Functional tests of the Esophagus
  1. pHmetry
  2. Manometry

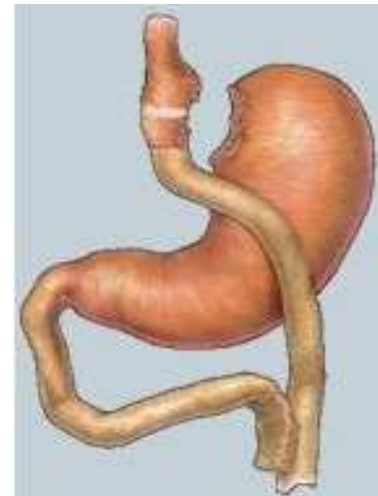
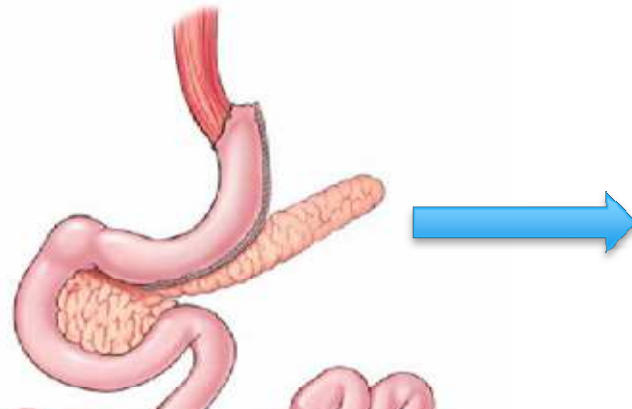
# What do may find?



# Scenario #1

## Hiatal Hernia / GERD / Esophagitis

- \* Why do we go for a RYGB?
  - \* Improves gastric emptying
  - \* High resistance to a Low resistance system
  - \* Anatomic repair of the hiatal hernia
  - \* Adds some restriction → Weight loss





# Scenario #1

## Hiatal Hernia / GERD / Esophagitis

- \* Some technical Pitfalls
  - \* Intensive examination of the GE junction
    - \* Complete Dissection of the Esophagus
    - \* Hiatal hernia repair
    - \* Cruroplasty

# Scenario #1

## Hiatal Hernia / GERD / Esophagitis

- \* Published previous Experiences
  - \* Good results improving GERD and Esophagitis
  - \* Improvement in weight loss
  - \* Low morbidity and mortality

OBES SURG (2010) 20:835–840  
DOI 10.1007/s11695-010-0125-z

CLINICAL RESEARCH

### Conversion from Sleeve Gastrectomy to Roux-en-Y Gastric Bypass—Indications and Outcome

Felix B. Langer • Arthur Bohdjalian • Soheila Shakeri-Leidenmühler •  
Sebastian F. Schoppmann • Johannes Zacherl • Gerhard Prager

OBES SURG (2013) 23:212–215  
DOI 10.1007/s11695-012-0782-1

CLINICAL REPORT

### Indications and Mid-Term Results of Conversion from Sleeve Gastrectomy to Roux-en-Y Gastric Bypass

Thomas Gautier • Thomas Sarcher • Nicolas Contival •  
Yannick Le Roux • Arnaud Alves



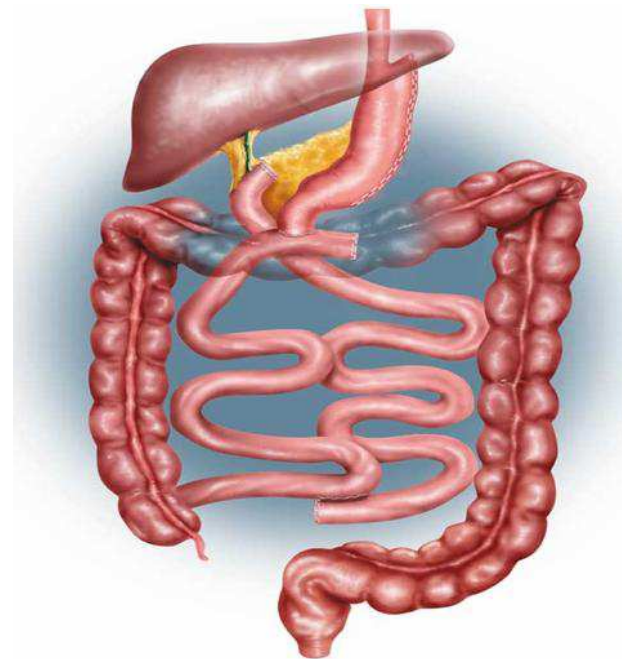
## Scenario #2

# Weight Loss Failure with Normal Anatomy

### \* Technical Options



VS



## Scenario #2

# Weight Loss Failure with Normal Anatomy

### Weight Loss

#### Duodenal Switch

- \* Up to 80% Excess Weight Loss long term

- \* Less than 10% of w

DS wins!

#### RYGB

- \* 60% Excess Weight Loss long term

- \* 25% of weight loss failure

Status Report

**The Biliopancreatic Diversion with the Duodenal Switch: Results Beyond 10 Years**

Douglas S. Hess, MD; Douglas W. Hess, MD; Richard S. Oakley, MD

**Christou NV, Weight Gain After Short- and Long-Limb Gastric Bypass in Patients Followed for Longer Than 10 Years. Ann Surg 244:734-40, 2006**

## Scenario #2

# Weight Loss Failure with Normal Anatomy

### Complications and Sequelae

#### Duodenal Switch

- \* Technically complex procedure
- \* Requires long term follow up
- \* Risk of protein malnutrition
- \* Risk of metabolic complications
  - \* Anaemia
  - \* Hypocalcemia
  - \* Osteoporosis
  - \* Hypovitaminosis A, D and K

#### RYGB

- \* Well known and standardized procedure
- \* Low risk of malnutrition
- \* Risk of metabolic complications
  - \* Anaemia
  - \* Hypocalcemia

RYGB wins!

# Why do rather prefer the DS?

- \* Better long term weight loss
- \* Low risk of weight regain
- \* Low morbidity and mortality in selected teams
- \* Better results in comparative trials
- \* Better results in some cases
  - \* BMI > 50 kg/m<sup>2</sup>
  - \* Age > 50 years

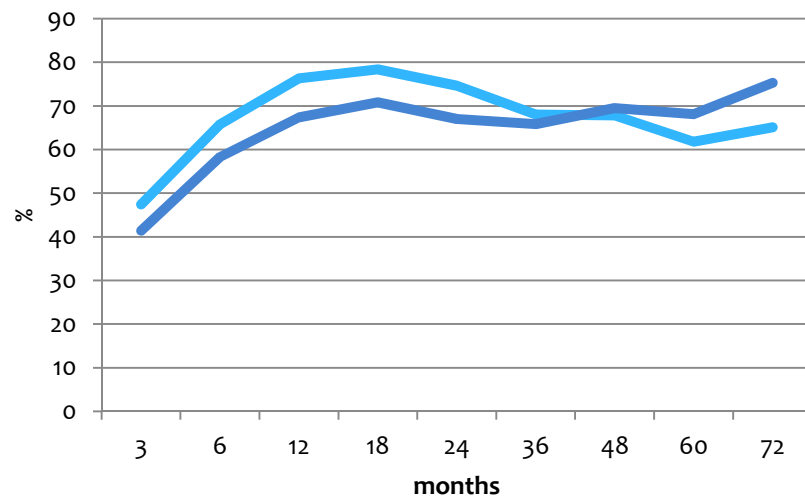
Patients well informed and compromised

# Scenario #2

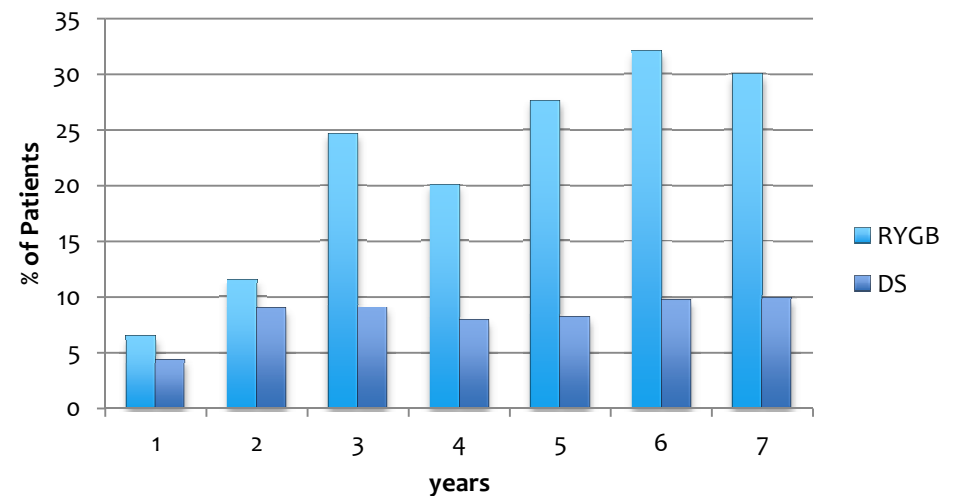
## Weight Loss Failure with Normal Anatomy

### \* Bellvitge University Hospital Experience

**Excess Weight Loss**

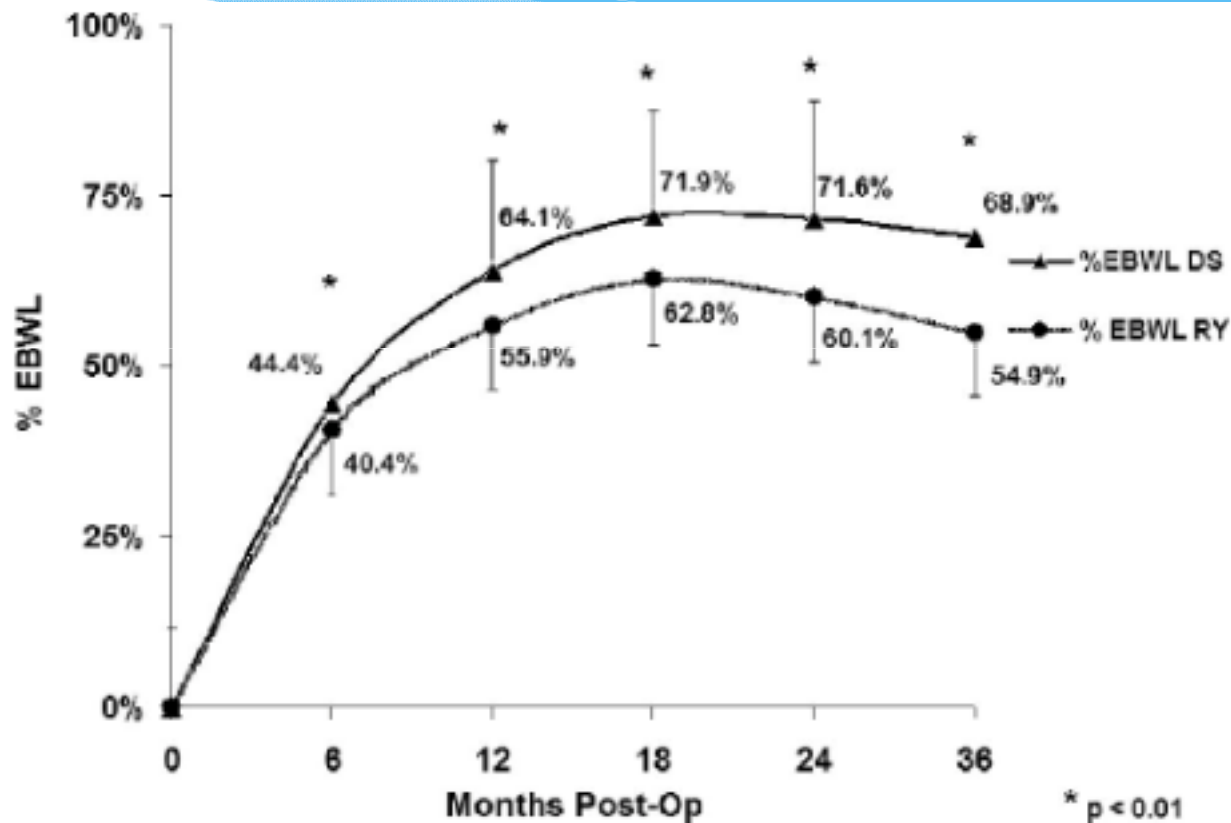


**Weight Loss Failure**



## Scenario #2

# Weight Loss Failure with Normal Anatomy



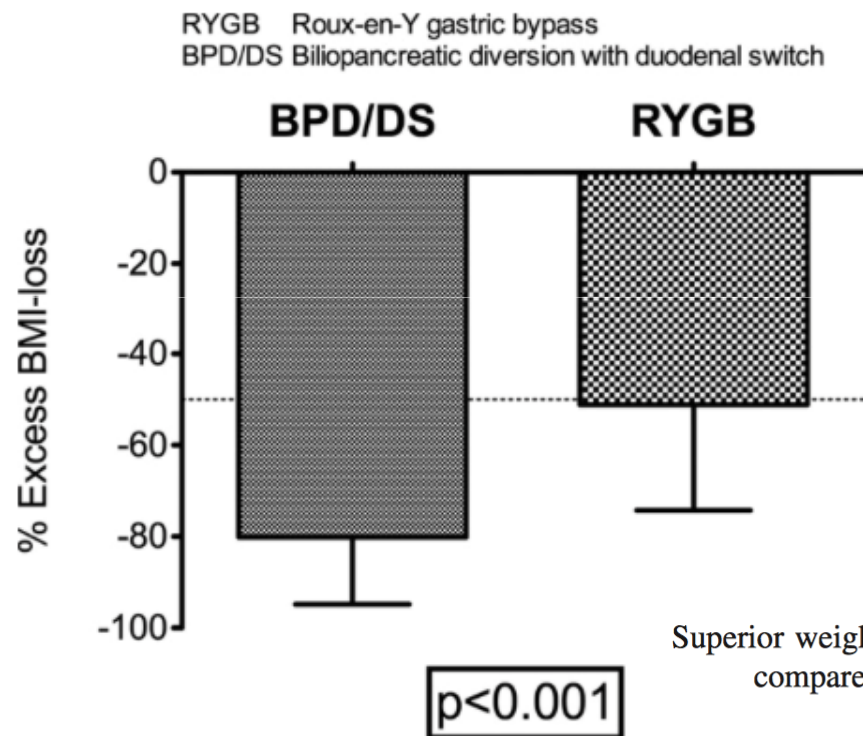
Duodenal Switch Provides Superior Weight Loss  
in the Super-Obese ( $\text{BMI} \geq 50 \text{ kg/m}^2$ ) Compared With  
Gastric Bypass

Vivek N. Prachand, MD, Roy T. DaVee, BS, and John C. Alverdy, MD



# Scenario #2

## Weight Loss Failure with Normal Anatomy



Original article

Superior weight loss and lower HbA1c 3 years after duodenal switch compared with Roux-en-Y gastric bypass—a randomized controlled trial

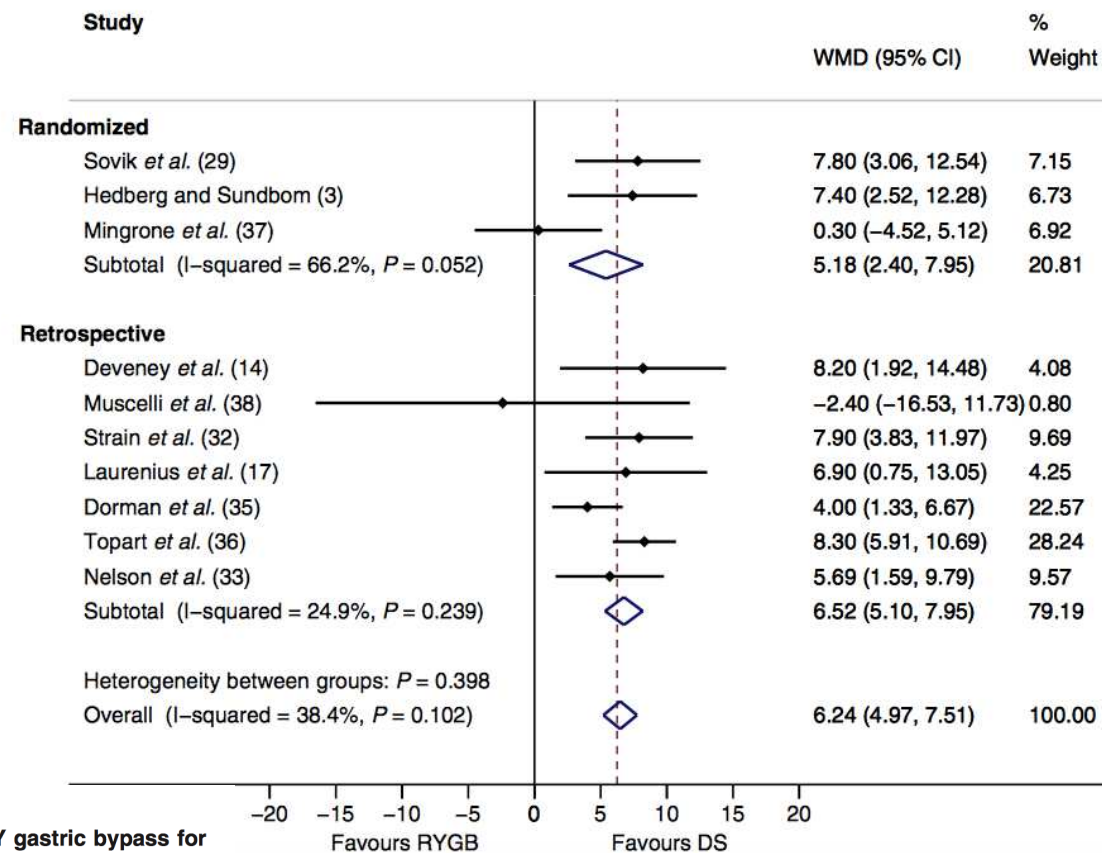
Jakob Hedberg, M.D., Ph.D.\*, Magnus Sundbom, M.D., Ph.D.

Department of Surgical Sciences, Uppsala University, Uppsala, Sweden

Received September 13, 2011; accepted January 26, 2012

# Scenario #2

## Weight Loss Failure with Normal Anatomy

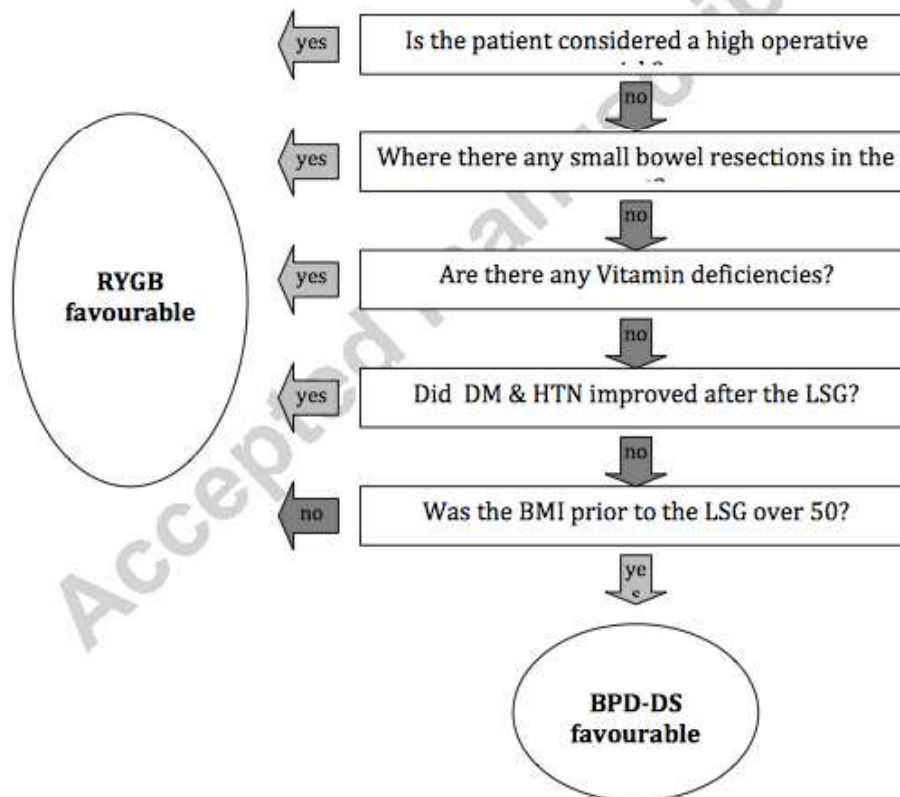


**Duodenal switch versus Roux-en-Y gastric bypass for morbid obesity: systematic review and meta-analysis of weight results, diabetes resolution and early complications in single-centre comparisons**

# Scenario #2

## Weight Loss Failure with Normal Anatomy

The decision-making process after failure of a SG. Flowchart 1



Article in Press

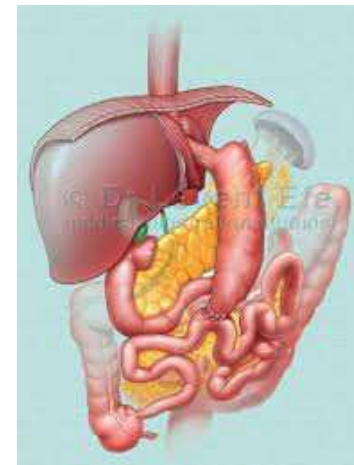
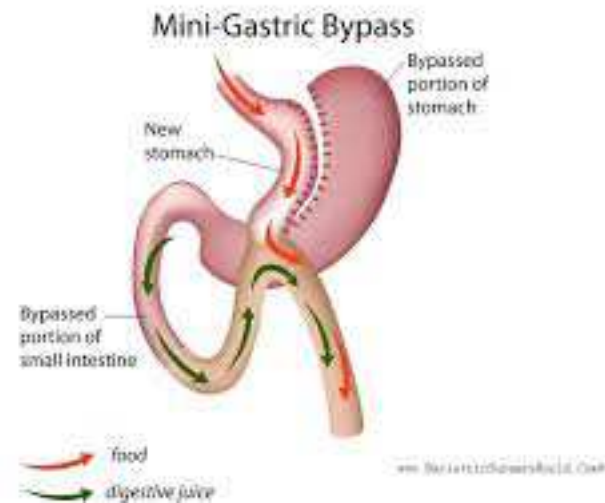
Laparoscopic conversion of sleeve gastrectomy to a biliopancreatic diversion with duodenal switch or a Roux-en-Y gastric bypass due to weight loss failure: our algorithm☆☆☆☆

[Idan Carmeli, MD](#), [Inbal Golomb, BSc](#), [Eran Sadot, MD](#), [Hanoch Kashtan](#), [Andrei Keidar, MD](#)

# Scenario #2

## Weight Loss Failure with Normal Anatomy

- \* Some other published options
  - \* Mini Gastric Bypass
  - \* SADI-S



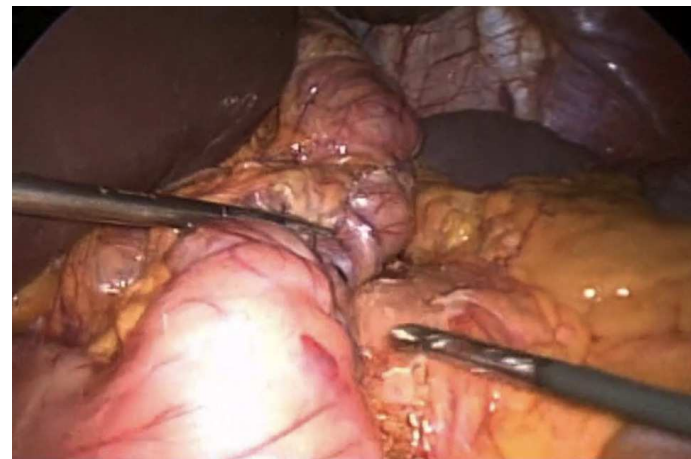
# Scenario #3

## Contraindication for Malabsorption

- \* Recovery of the restriction
  - \* Re-Sleeve
  - \* Gastric Plication



Fig. 1. Re-SG, firing of linear stapler (green load) along 34F orogastric bougie.



Courtesy of Almino Ramos and Manoel Galvao. Sao Paulo. Brazil

# Scenario #3

## Contraindication for Malabsorption



Surgery for Obesity and Related Diseases 7 (2011) 38–44

SURGERY FOR OBESITY  
AND RELATED DISEASES

Original article

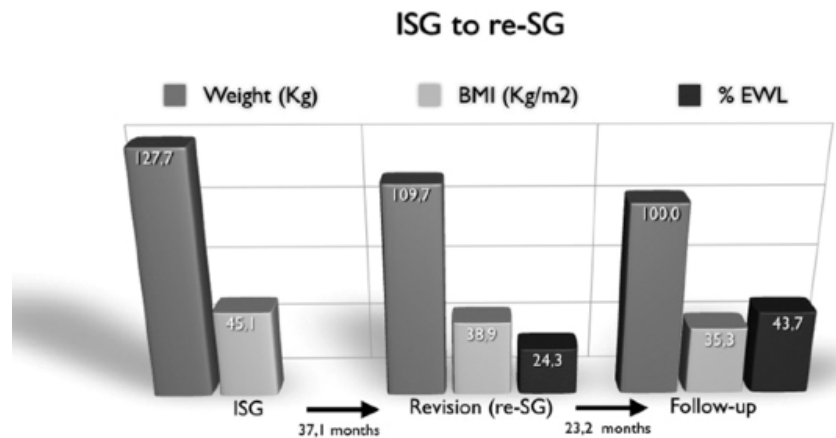
Laparoscopic repeat sleeve gastrectomy versus duodenal switch after isolated sleeve gastrectomy for obesity

Giovanni Dapri, M.D., F.A.C.S.\*, Guy Bernard Cadière, M.D., Ph.D., Jacques Himpens, M.D.

- \* ReSleeve
  - \* High risk of leak
  - \* Not such good weight loss results



Fig. 1. Re-SG, firing of linear stapler (green load) along 34F orogastric bougie.

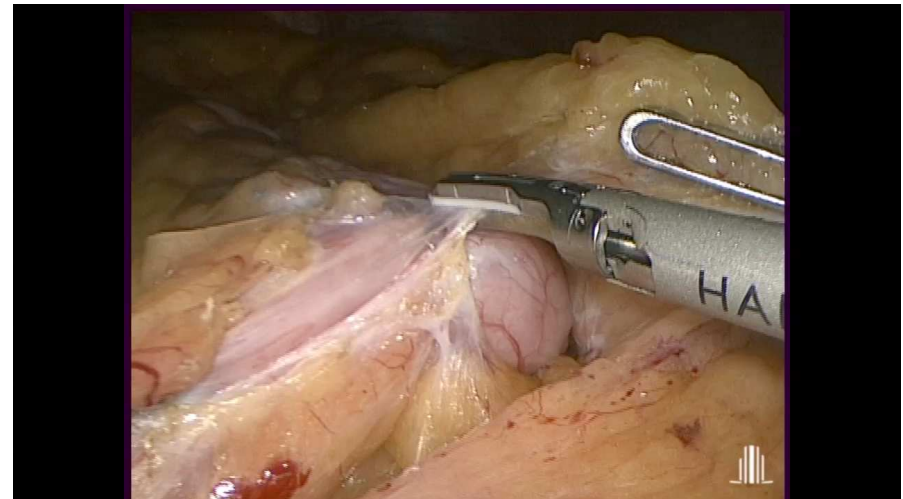




# Scenario #3

## Contraindication for Malabsorption

- \* Gastric Plication of the Dilated Sleeve
  - \* Technically demandant surgical procedure
  - \* Low risk of leak
  - \* Low experience worldwide



# Summary

- \* Weight loss failure after Sleeve Gastrectomy requires accurate examination
- \* RYGB seems to be the election procedure in case of complications like Esophagitis / GERD / Hiatal Hernia
- \* DS has better long term results in cases of normal anatomy
- \* In case of contraindication for malabsorption the safest option is the plication of the sleeve