# See you in Naples!





## IESO

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#### XXVI IFSO WORLD CONGRESS

OF BARIATRIC & METABOLIC SURGERY

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# Surgical Management of Post GB Dumping with inadequate weight loss;

Indications & Rules to be respected

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#### **Objectives:**

- Hypo-absorptive techniques
- Indications of Reversal .... Failure!
- Dumping; when need surgery
- Is conversion from Hypo-absorptive to restrictive effective
- Our Case reports .. Video
- Revising steps to avoid complications
- Conclusion

#### Hypo-absorptive techniques

(Bariatric surgery does not injure intestine and does not alter normal absorption of nutrients by intestines; the absorption is normally intact).

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(mixed surgery; restriction and "malabsorption" .....mild hypo-absortion
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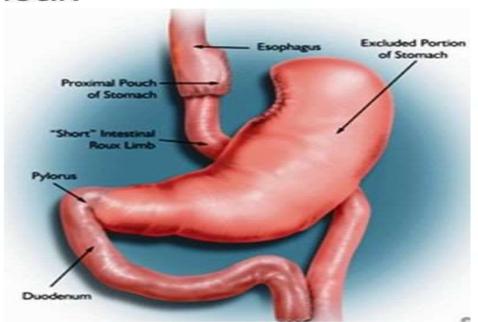
(Single anastomosis gastric bypass) with a longer biliopancreatic limb ...... moderately hypo-absorptive

Short common channel...... highly hypo-absorptive.

#### Roux en Y gastric bypass (RYGB)

#### Complications after gastric bypass (RYGB) are well documented

- Anastomotic or staple-line leak
- Acute gastric distention
- Staple-line disruption
- Stomal stenosis
- Stomal ulceration
- Small-bowel obstruction
- Occlusion of Roux limb
- Dumping





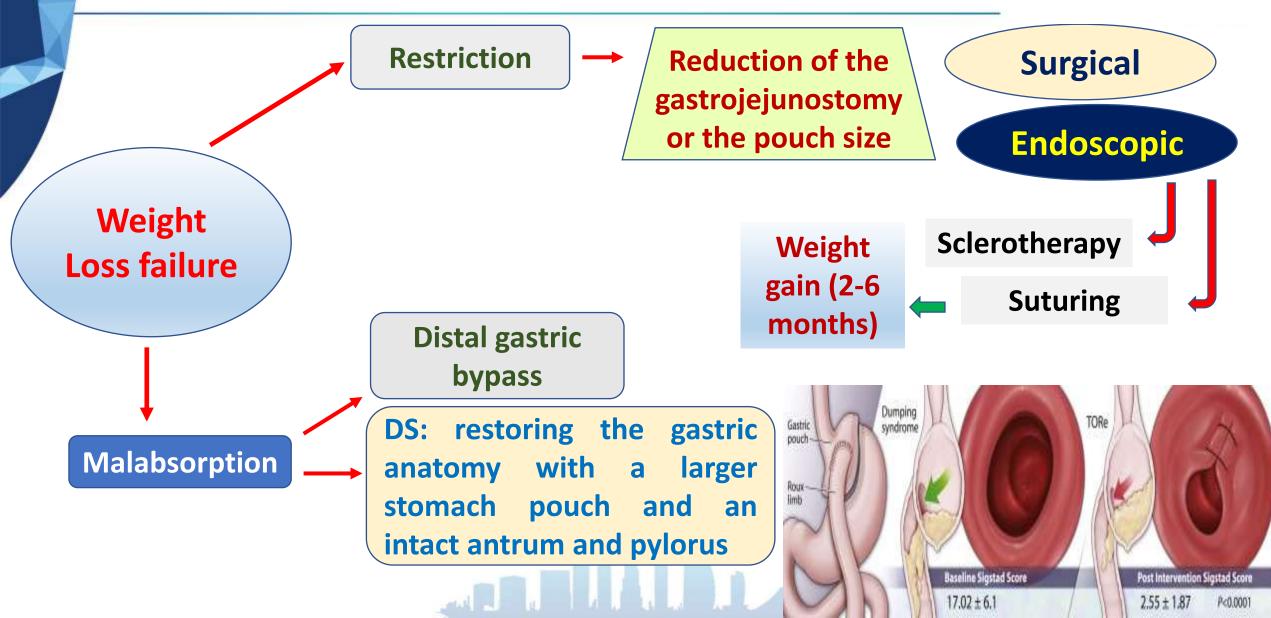
#### Roux en Y gastric bypass (RYGB)

When convert RYGB

- Refractory marginal ulceration
- Stricture
- Dumping
- Gastrogastric fistula
- Hypoglycemia
- Failed weight loss

• Laparoscopic conversion from RYGB to SG is successful in resolving certain complications of RYGB and *does not result in short-term* weight gain.

## **Options for Conversion of RYGB**



## **Options for Conversion of RYGB**

**Dumping** Syndrom + Weight Loss Failure ???

## **Dumping Syndrome**

Is not infrequent after laparoscopic Roux-en-Y gastric bypass (LRYGB) and could result in dreaded complications, such as neuroglycopenia.

Dumping syndrome

Intractable dumping syndrome

When patients are refractory to diet modification or/and medication.

Revision procedures should be taken into consideration

#### **Dumping Syndrome**

#### **Symptoms**

#### Early dumping

Gastrointestinal symptoms

Abdominal pain, diarrhea, borborygmi, bloating, nausea

Vasomotor symptoms

 Flushing, palpitations, perspiration, tachycardia, hypotension, syncope

#### Late dumping

Hypoglycemia

Perspiration, palpitations, hunger, weakness, confusion, tremor, syncope

Source: Nat Rev Gastroenterol Hepatol @2009 Nature Publishing Group

#### How to diagnose Dumping syndrome

How do you evaluate dumping syndrome?

radioactive material (check how fast stomach empties for up to 4 hours after the meal.

Sigstad diagnostic
Score system is used to determine dumping syndrome versus non-dumping syndrome. A score greater than +7 suggests dumping.

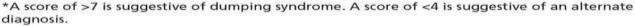
## How to diagnose Dumping syndrome

#### Sigstad Scoring system

value applied to the signs and symptoms of dumping syndrome\_

#### Sigstad scoring system for dumping syndrome<sup>16,17,19</sup>

Postprandial symptoms	Score*
Shock	+5
Fainting, syncope, unconsciousness	+4
Desire to lie down	+4
Dyspnea	+3
Weakness	+3
Sleepiness, apathy	+3
Palpitations	+3
Restlessness	+2
Dizziness	+2
Headaches	+1
Warm, clammy skin or pallor	+1
Nausea	+1
Abdominal fullness	+1
Borborygmi (abdominal rumbling/gurgling)	+1
Eructation (belching)	-1
Vomiting	-4





#### Pathophysiology of dumping syndrome

consequence of damage to the Vagus nerve?

Hormonal

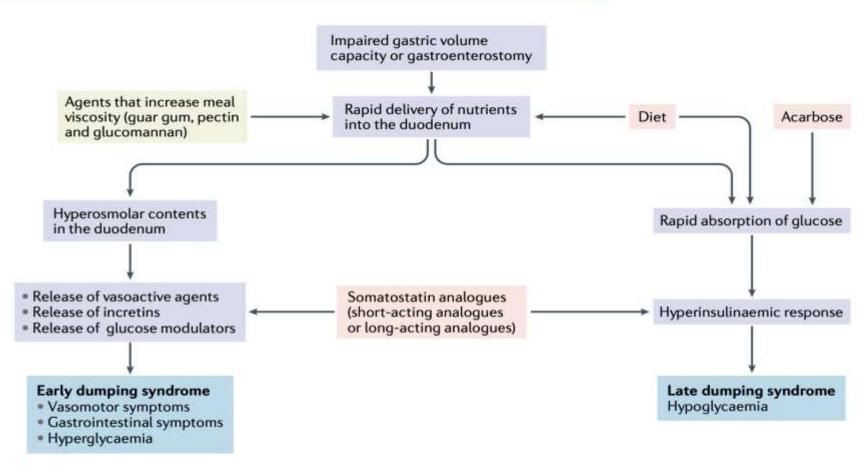
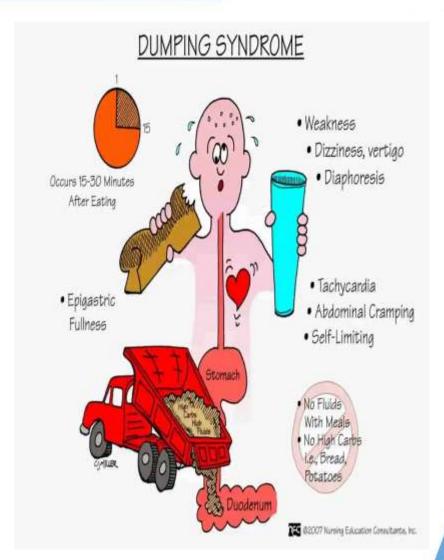


Fig. 1 | Pathophysiology and therapeutic targets in dumping syndrome. The pathophysiological flow chart of dumping syndromes is presented in purple, with the main features of early and late dumping syndromes presented in blue. Therapeutic agents that increase meal viscosity (such as guar gum, pectin and glucomannan) have no clear evidence of efficacy (yellow). By contrast, endorsed evidence of efficacy is available for the use of diet modifications, acarbose and somatostatin analogues (pink).

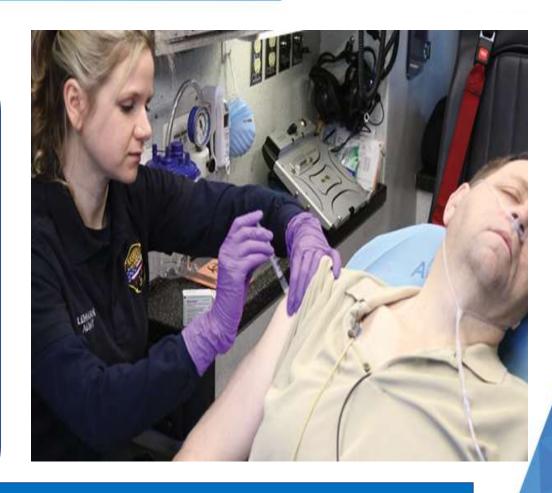
## How we treat dumping syndrome?

- Lifestyle and home remedies
- Eat smaller meals. Try eating 5 or 6 small meals a day rather than three larger ones.
- Lie down after meals. ...
- Drink most of your fluids between meals. ...
- Drink 6 to 8 cups (1.4 to 1.9 liters) of fluids a day. ...
- Change your diet. ...
- Increase fiber intake. ...



#### When Dumping syndrom need surgery

- Intractable dumping syndrome leading to hyperinsulinemic hypoglycemia (complication after RYGB) may warrant revision surgery (The Sigstad's score >5)
- Weight regain or Inadequate weight loss



The Sigstad's score decreased to 2 points 6 months later, and the body mass index reduced to 26 and 28 kg/m<sup>2</sup>.

#### Roux en Y gastric bypass (RYGB)

 Reversal of RYGB is indicated in select cases but can lead to weight gain.

Conversion of RYGB is indicated in

Failure to lose weight, weight regain, and intractable dumping syndrome

 Conversion from RYGB to sleeve gastrectomy (SG) has been proposed for correction of complications of RYGB without

associated weight gain.

Outcome

#### **Conversion of RYGB Publications**





SURGERY FOR OBESITY AND RELATED DISEASES

Surgery for Obesity and Related Diseases 12 (2016) 572-576

Original article

Conversion from gastric bypass to sleeve gastrectomy for complications of gastric bypass

Cullen O. Carter, M.D.\*, Adolfo Z. Fernandez, M.D., Stephen S. McNatt, M.D., Myron S. Powell, M.D.

Department of Surgery, Wake Forest Baptist Health, Winston-Salem, North Carolina Received June 2, 2015; accepted July 1, 2015

#### Asian Journal of Endoscopic Surgery

Official Journal of JSES, ELSA, and AETF

Asian J Endosc Surg ISSN 1758-5902

ORIGINAL ARTICLE

## Laparoscopic revision of Roux-en-Y gastric bypass to sleeve gastrectomy: A ray of hope for failed Roux-en-Y gastric bypass

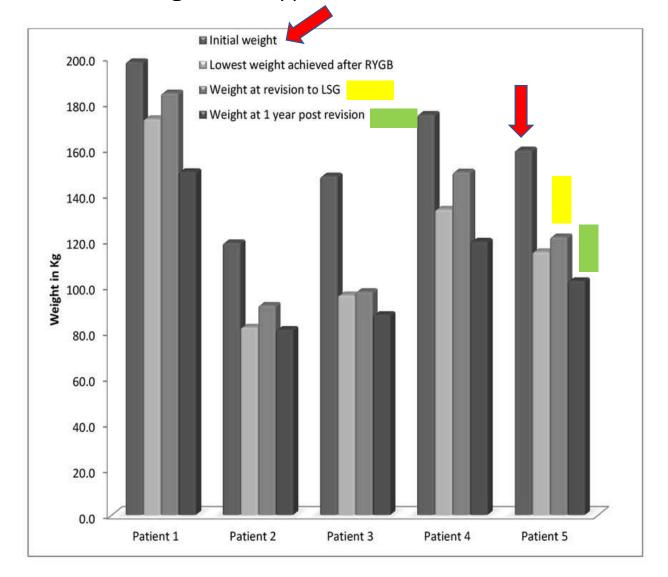
Muffazal Lakdawala, <sup>1,2</sup> Peter Limas, <sup>1,3</sup> Shilpa Dhar, <sup>1</sup> Carlyne Remedios, <sup>1</sup> Neha Dhulla, <sup>1</sup> Amit Sood <sup>1,2</sup> & Aparna Govil Bhasker <sup>1,2</sup>

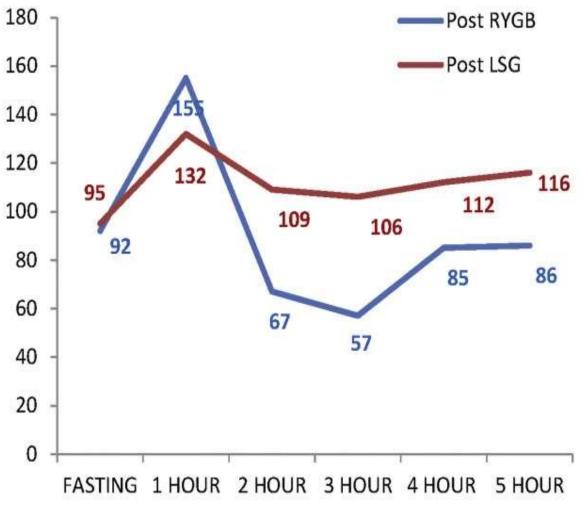
1 Centre for Obesity and Digestive Surgery, Mumbai, India

2 Department of Bariatric and Metabolic Surgery, Institute of Minimally Invasive Surgical Sciences and Research Centre, Saifee Hospital, Mumbai, India

3 Gading Pluit Hospital, Kelapa Gading, Indonesia

Change in weight profile of individual patients. LSG, laparoscopic sleeve gastrectomy; RYGB, Roux-en-Y gastric bypass.





Mean blood sugar levels during a 5-h oral glucose tolerance test pre- and post-revision surgery. LSG, laparoscopic sleeve gastrectomy; RYGB, Roux-en-Y gastric bypass.

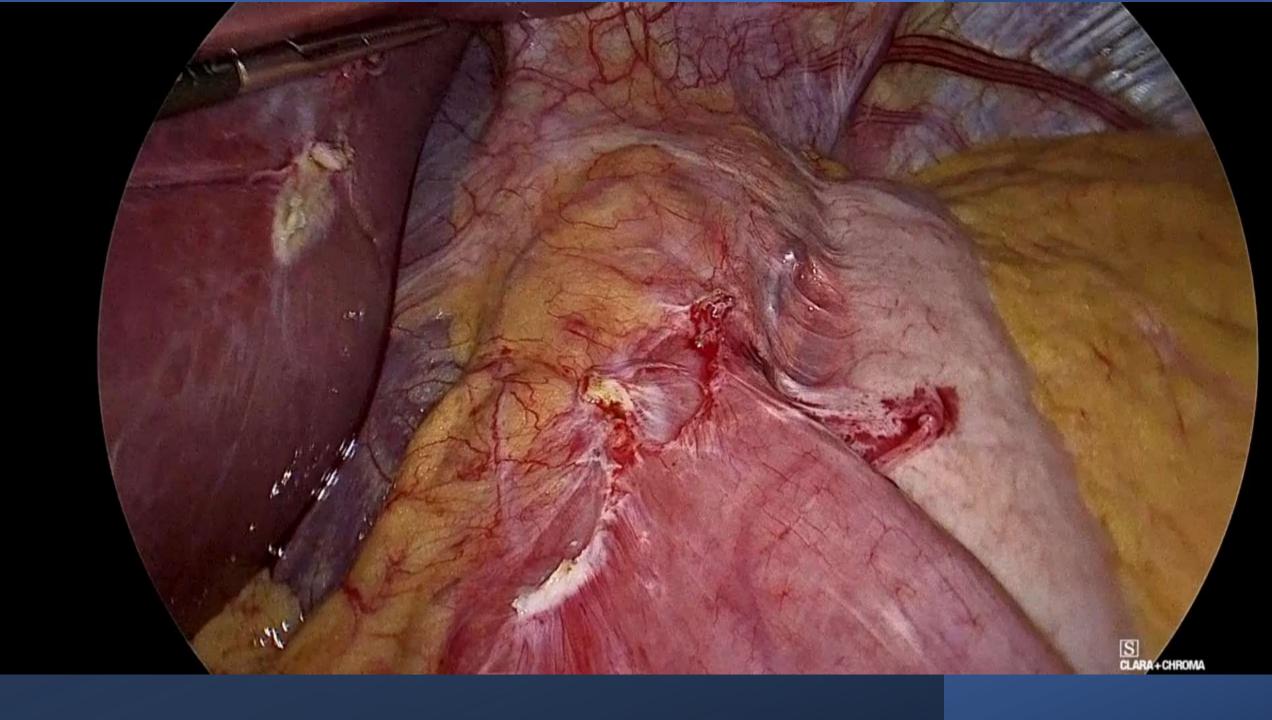
#### Weight Loss (RYGB to SG) .... How?

Possible mechanisms to explain this additional weight loss

- Restoration of the gastric anatomy with a functional pylorus ..... restriction after SG. - the resection of the entire ghrelinproducing fundus of the stomach.

#### **Preoperative preparation:**

- All patients underwent extensive preoperative counseling on diet and lifestyle modification for 6 months with a multidisciplinary team consisting of a nutritionist, psychologist, endocrinologist, and surgeon.
- Emotional and behavioral causes for failure of primary surgery were ruled out.
- An upper GI endoscopy along with a barium study was performed to assess the pouch and stoma size.
- The stoma size was adequate in all patients, and there was no dilatation of the gastric pouch.
- Nutritional evaluation including s.iron, vitamin B12 levels,.....



#### **Postoperative care**

- Patients were kept nil by mouth for the first 3 days.
- An oral contrast study using a water-soluble dye was per- formed on postoperative day 3- 4 to check for a leak.
- Keep adequate feeding through enteral or parenteral access, patients were started on liquids orally for 15 days followed by semi-solids for 15 days and subsequently solids.
- Deep vein thrombosis prophylaxis was continued for 7 days postoperatively.

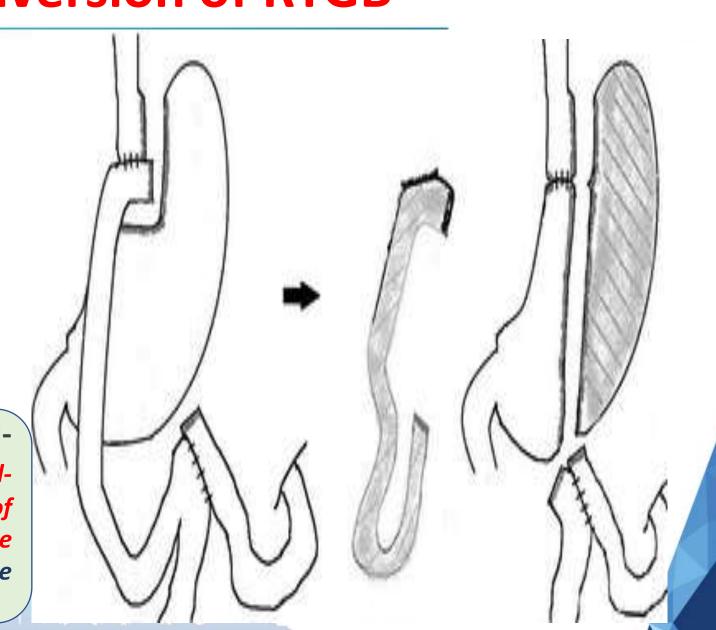
It will be interesting to see how these patients in the long term follow up.

### **Key points for Conversion of RYGB**

Completely resect or Divide the gastro-jejunal anastomosis.

The distal stomach is then mobilized in order to create a tension-free gastro-gastrostomy.

The anastomosis is typically handsewn or with large reload size. (Handsewn allow more flexibility for the position of the enterotomies and the length of the anastomosis.) ..... (Stapled anastomosis to be end to end rather than side to side)

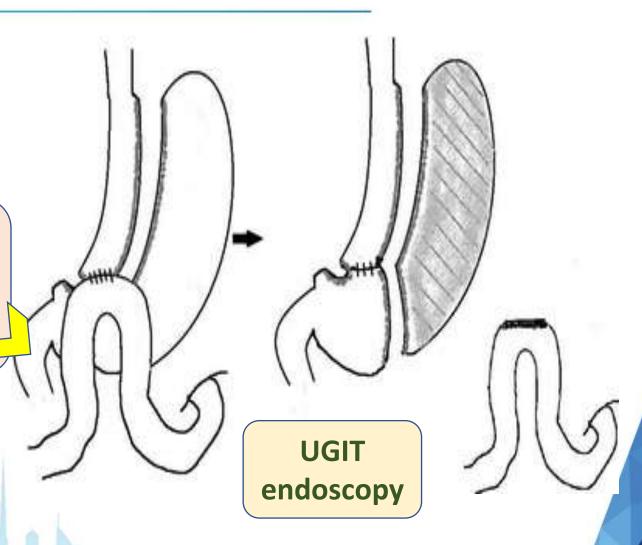


#### **Key points for Conversion of RYGB**

The roux limb may be left in position, or resected just above the jejuno-jejunostomy

Pyloroplasty to be performed in conjunction with the gastro-gastrostomy, as the distal stomach is functionally vagotomized.

Consider repair of Hiatal hernia (posterior hiatoplasty, a ligamentum teres wrap may be a useful adjunct to prevent re-migration into the thorax and bolster the antireflux mechanism).



## Thank You

