



S.I.C.O.B.

XXXII CONGRESSO
NAZIONALE SICOB

23 - 25 MAGGIO 2024
G I A R D I N I
N A X O S



Quale chirurgia dopo fallimento di RYGB

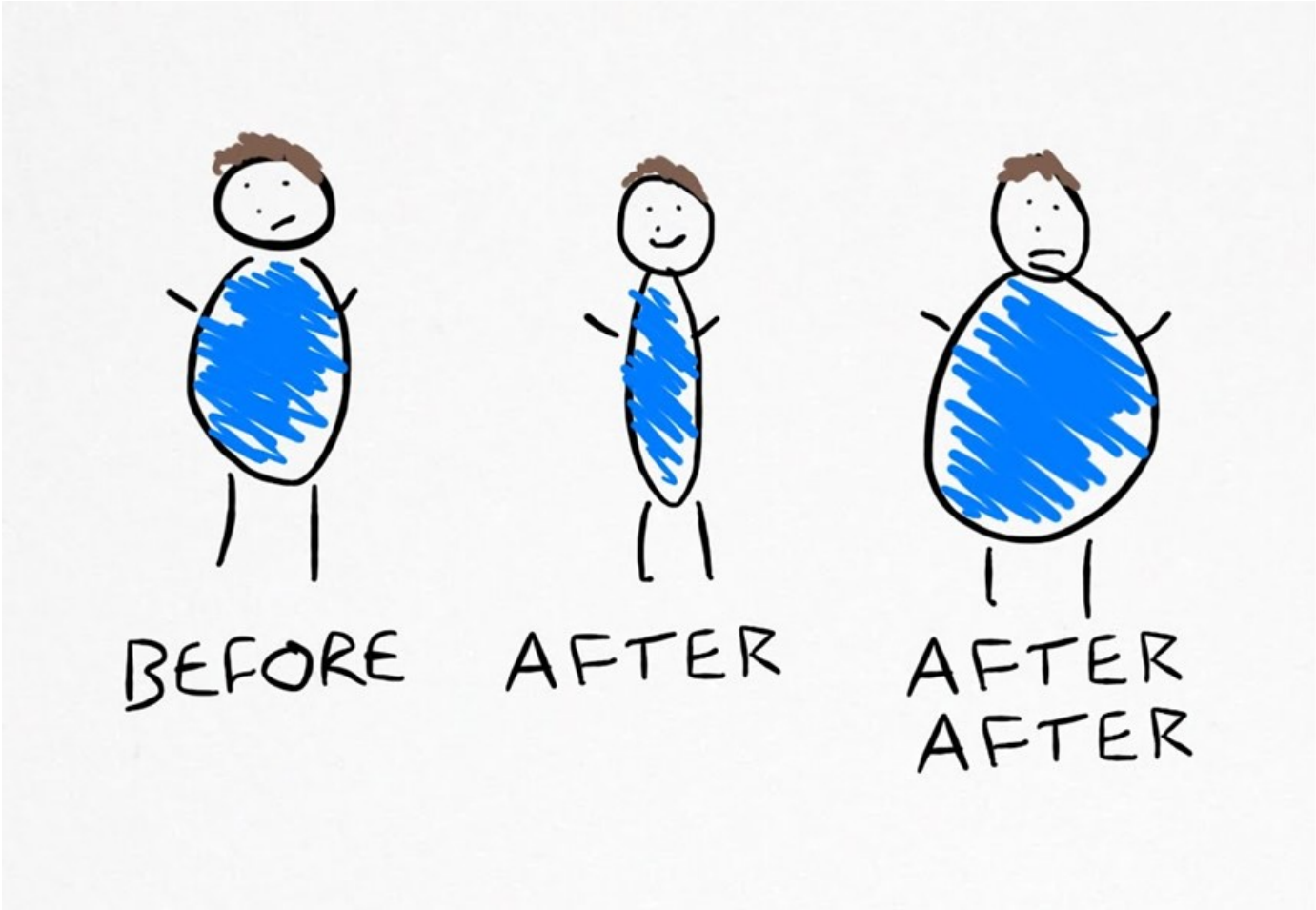
Enrico Facchiano

Direttore f.f. S.O.C. Chirurgia Generale, Metabolica
e Bariatrica

Ospedale Santa Maria Nuova – Firenze

Direttore S.O.S. Chirurgia Metabolica e Bariatrica
Ospedale San Jacopo – Pistoia

Weight regain after MGB/OAGB



Weight regain or IWL after RYGB

Prevalence of insufficient weight loss 5 years after Roux-en-Y gastric bypass: metabolic consequences and prediction estimates: a prospective registry study

Markus Brissman ,^{1,2} Andrew J Beamish,^{3,4} Torsten Olbers,^{5,6} Claude Marcus¹

Prospective cohort study in 29 Centers in Sweden, 5 year FU

BMJ. 2021

5963 patients, failure **23%**

Seven-Year Weight Trajectories and Health Outcomes in the Longitudinal Assessment of Bariatric Surgery (LABS) Study

Anita P. Courcoulas, MD, MPH; Wendy C. King, PhD; Steven H. Belle, PhD; Paul Berk, MD; David R. Flum, MD, MPH; Luis Garcia, MD; William Gourash, PhD, CRNP; Mary Horlick, MD; James E. Mitchell, MD; Alfons Pomp, MD; Walter J. Pories, MD; Jonathan Q. Purnell, MD; Ashima Singh, PhD; Konstantinos Spaniolas, MD; Richard Thirlby, MD; Bruce M. Wolfe, MD; Susan Z. Yanovski, MD

JAMA Surg. 2018

1738 patients, failure **25%**

Multicenter study in 10 US hospitals, FU up to 7 years

Weight regain or IWL after RYGB

Bariatric Surgery and Long-term Durability of Weight Loss

JAMA Surg. 2016


Matthew L. Maciejewski, PhD; David E. Arterburn, MD, MPH; Lynn Van Scoyoc, BA; Valerie A. Smith, DrPH;
William S. Yancy Jr, MD, MHSc; Hollis J. Weidenbacher, PhD; Edward H. Livingston, MD; Maren K. Olsen, PhD

564 patients, failure **28%**

Cohort study, up to 10 year FU

Long-term outcomes following laparoscopic Roux-en-Y gastric bypass: weight loss and resolution of comorbidities at 15 years and beyond

Surg Endosc. 2023

Paul H. McClelland¹  · Mohsin Jawed¹ · Krystyna Kabata¹ · Michael E. Zenilman¹ · Piotr Gorecki¹

486 patients, 92 at 15 years, WR>15% **35%**

Single center prospective study , at least 15 year FU

Weight regain

Table 1 Selected examples of definitions and prevalence of WR and IWL after BS

Characteristic	Unit/component/s	Examples
Definition		
WR	Using EWL%	> 25% EWL from nadir [17–19]
	Using nadir weight %	≥ 10% [8, 20] or > 15% of nadir weight [21]
	Using nadir weight kg	≥ 10 kg from nadir [8, 21]
	Using maximum WL	≥ 10% [8, 24]
	Using pre-surgery weight	≥ 10% [25]
	Using any WR after remission	
	Using any WR	
	Using BMI	≥ 30 kg/m ² [26]
IWL		≥ 5% weight regain after successful WL [31]
		≥ 5% weight regain at 18 months [16]
Prevalence		
WR		Post-LAGB (38%) [32]; post-LSG (27.8%) [33]; post-RYGB (3.9%) [34]
IWL		After LSG (32–40%) [17, 35]; after RYGB, OAGB, and LSG combined (20%) [36]

Range of values since selected are examples for illustration purposes only and do not include all examples in the literature. *EWL* excess weight loss, *WR* weight regain, *IWL* insufficient weight loss, *WL* weight loss, *T2DM* type 2 diabetes, *BMI* body mass index, *LAGB* laparoscopic adjustable gastric banding, *LSG* laparoscopic sleeve gastrectomy, *OAGB* one anastomosis gastric bypass

^a Prevalence of WR are different depending on choice of BS procedure, varied assessment methods (EWL, weight from Nadir), and various follow-up periods

Non-comparable data

Weight loss target to prevent/treat obesity related complications

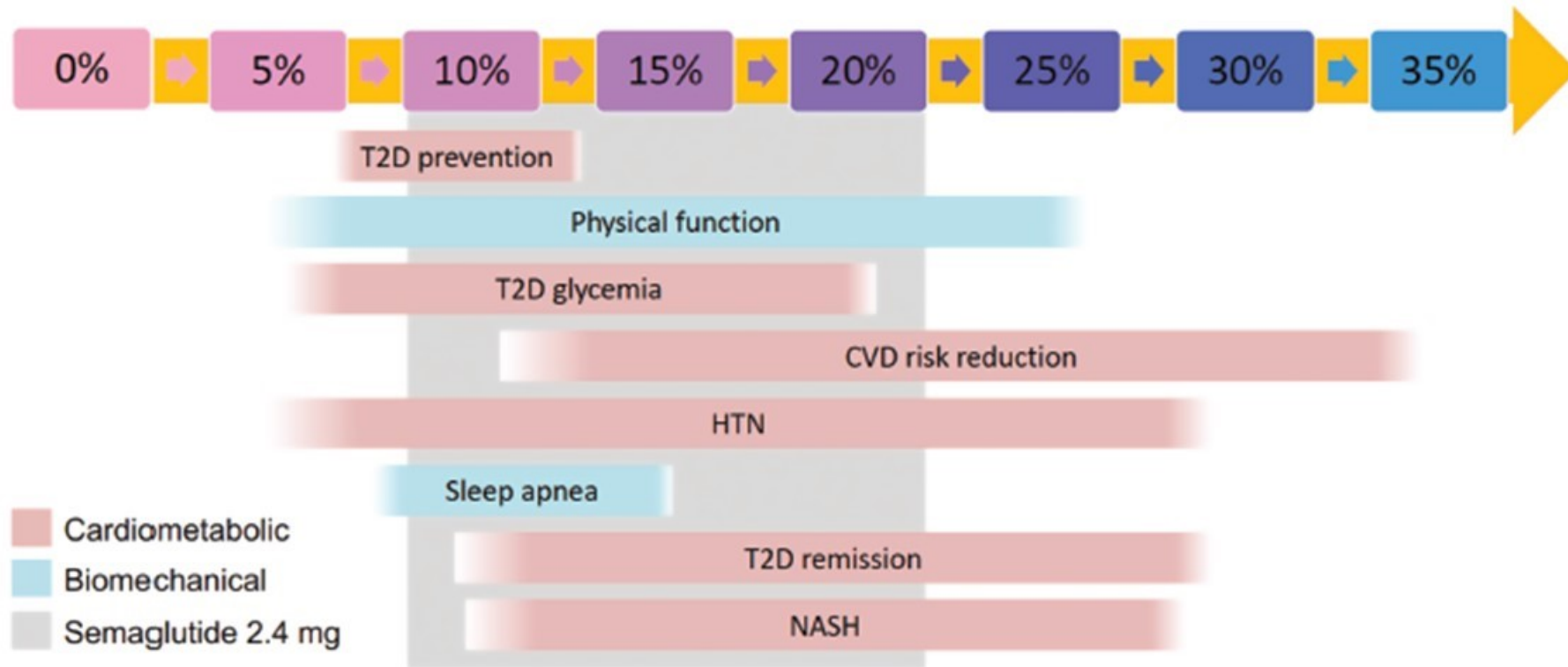


Figure 2. Treating ABCD/obesity to target for prevention and treatment of complications. Abbreviations: ABCD: adiposity-based chronic disease; CVD: cardiovascular disease; HTN: hypertension; NASH, nonalcoholic steatohepatitis; T2D, type 2 diabetes.

Obesity as a disease

Within subsets of patients with
overweight and/or obesity

Deranged endocrine and
immune responses

Sick fat disease (SFD)
(Adiposopathy)

- Elevated blood glucose
- Elevated blood pressure
- Dyslipidemia
- Other metabolic diseases

Abnormal and pathologic
physical forces

Fat mass disease (FMD)

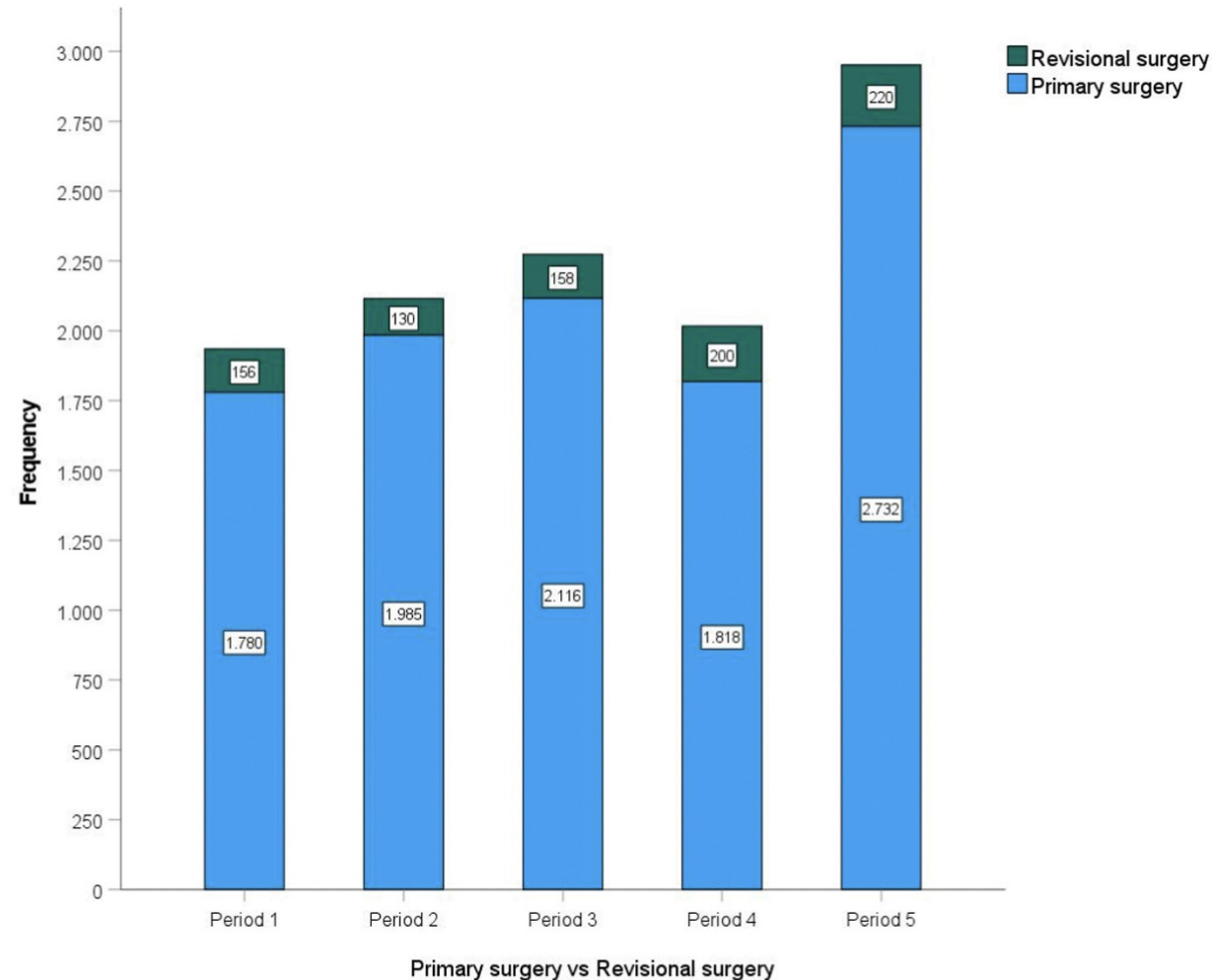
- Stress on weight bearing joints
- Immobility
- Tissue compression (e.g. sleep apnea, gastrointestinal reflux, high blood pressure, etc.)
- Tissue friction (e.g. intertrigo, etc.)

Trends and safety of bariatric revisional surgery in Italy: multicenter, prospective, observational study

Cristian E. Boru, M.D., Ph.D.^{a,*}, Giuseppe M. Marinari, M.D.^b, Stefano Olmi, M.D., Ph.D.^c,
Paolo Gentileschi, M.D.^d, Mario Morino, M.D.^e, Marco Anselmino, M.D.^f,
Mirto Foletto, M.D.^g, Paolo Bernante, M.D.^h, Luigi Piazza, M.D., Ph.D.ⁱ,
Nicola Perrotta, M.D.^j, Riccardo Morganti, Sc.D.^k, Gianfranco Silecchia, M.D., Ph.D.^a,
Cooperative RESTART Group

- 10 centri italiani ad *alto volume*
- Periodo 2016-2022
- La chirurgia di revisione ha rappresentato l'8.38% di tutte le procedure bariatriche eseguite nel periodo 2016-2022

780 Interventi di revisione



Indagare la presenza di comorbidità o pattern alimentari che potrebbero influenzare l'intervento di revisione

Indagare l'intervento primitivo

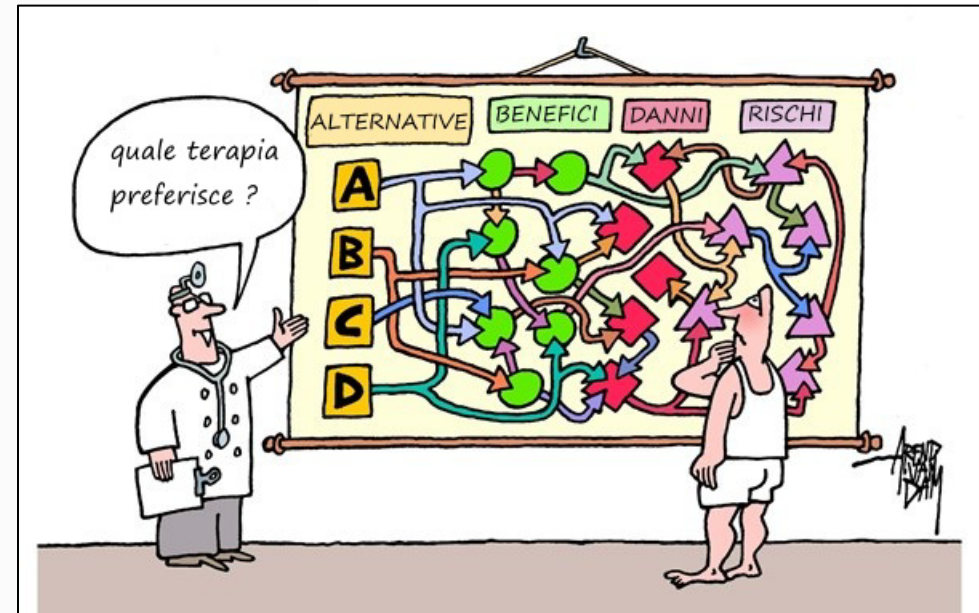
PIANIFICAZIONE DELLA STRATEGIA CHIRURGICA

Accurata diagnostica preoperatoria: EGDS, RX transito, ecografia, TC addome, ECC)



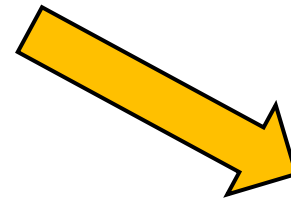
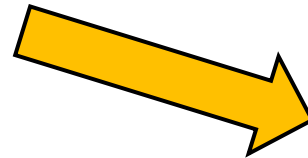
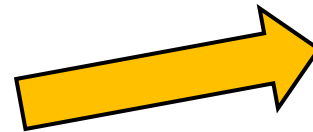
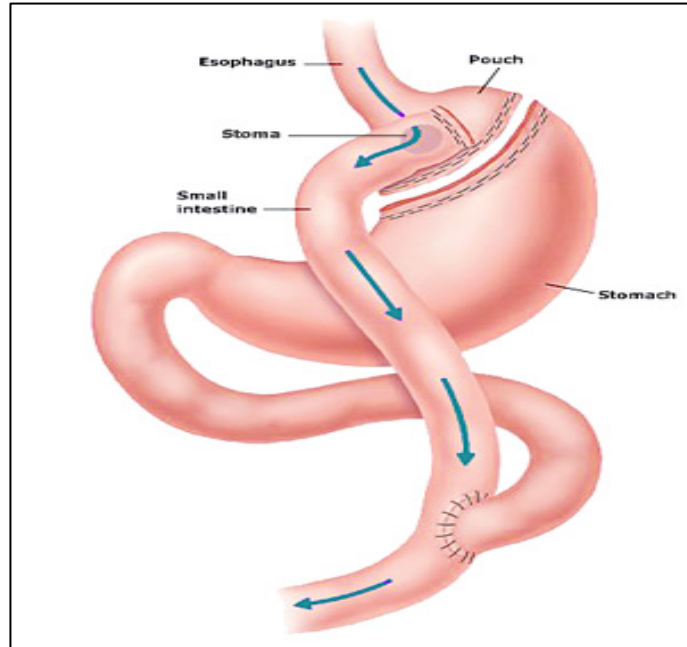
Adeguata informazione al paziente

- ✓ Maggiore complessità dell'intervento
- ✓ Rischi di complicanze post-operatorie
- ✓ Minore efficacia rispetto a intervento «nativo»
- ✓ «Ultima spiaggia»
- ✓ Motivazione del paziente



WEIGHT REGAIN / IWL DOPO RYGB

IN CASO DI DILATAZIONE DELLA POUCH E/O DELL'ANASTOMOSI GASTRO-DIGIUNALE



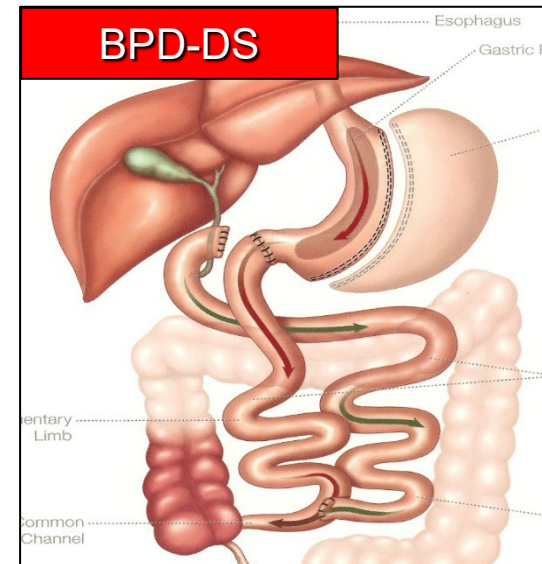
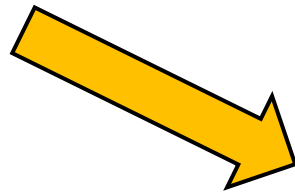
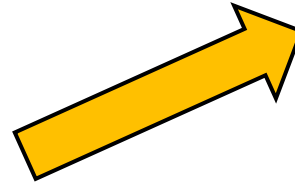
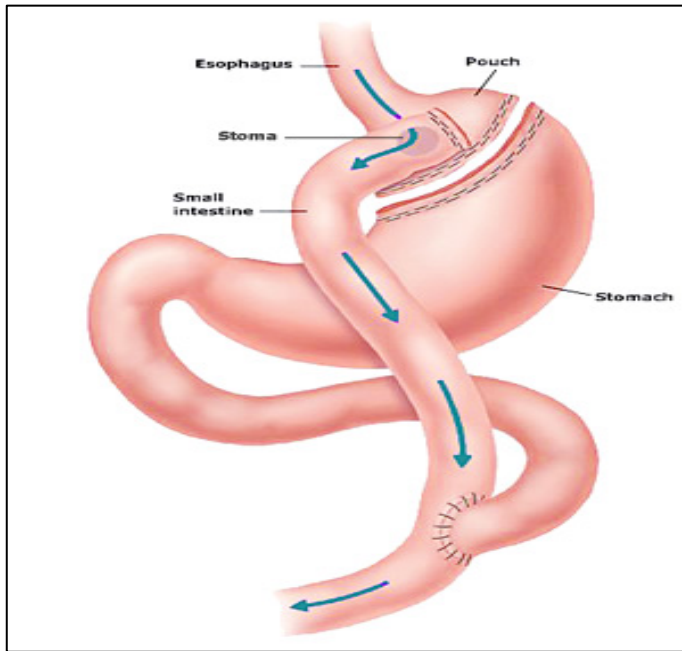
BENDAGGIO NON REGOLABILE



WEIGHT REGAIN / IWL DOPO RYGB

IN ASSENZA DI DILATAZIONE DELLA POUCH E/O DELL'ANASTOMOSI GASTRO-DIGIUNALE

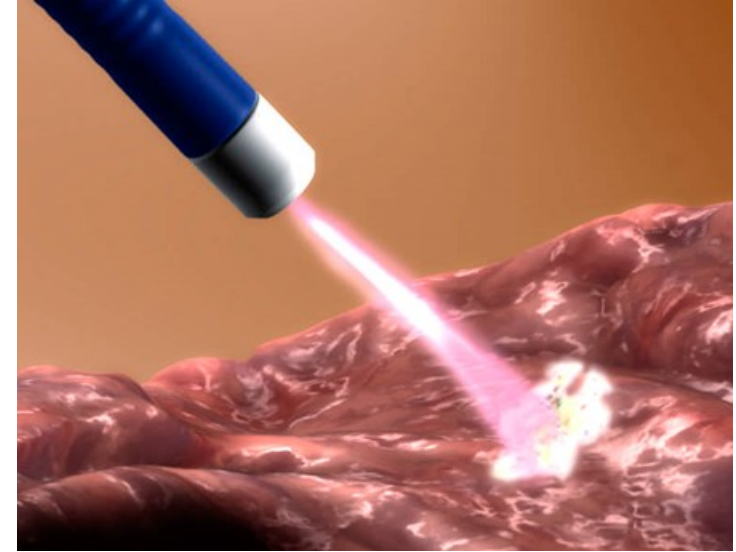
Valutazione multidisciplinare!!!



Opzioni endoscopiche

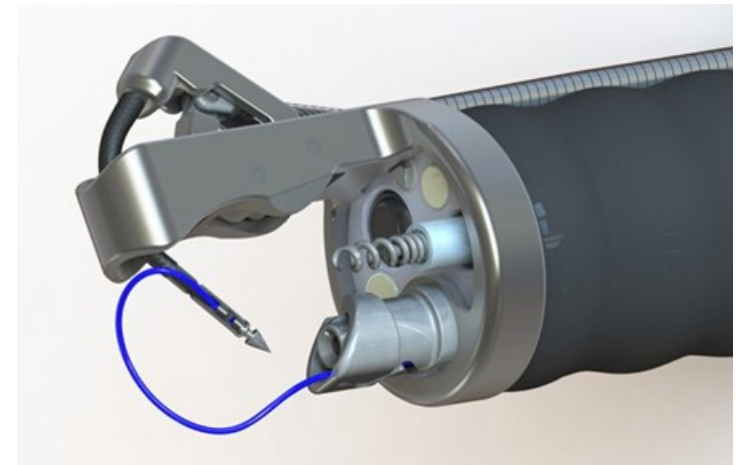
APC (Argon Plasma Coagulation):

Procedura endoscopica che mira a ridurre il calibro dell' anastomosi G-D tramite ablazione circonferenziale con Argon



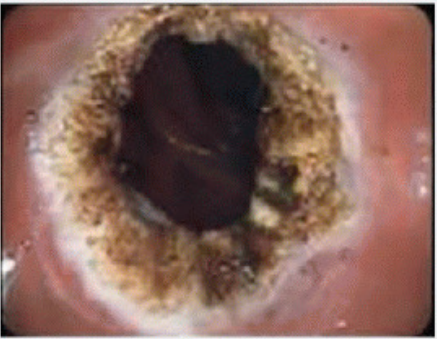
TORe (Transoral Outlet Reduction):

Procedura endoscopica di revisione dell' anastomosi e della pouch gastrica tramite overstitch



TORe+ APC: tecnica combinata

Argon Application - 2 months



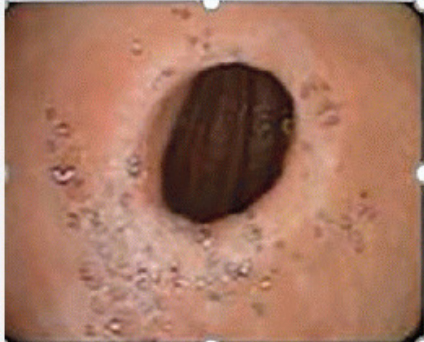
Result - 2 months



Argon Application - 4 months



Result - 4 months



Argon Application - 6 months

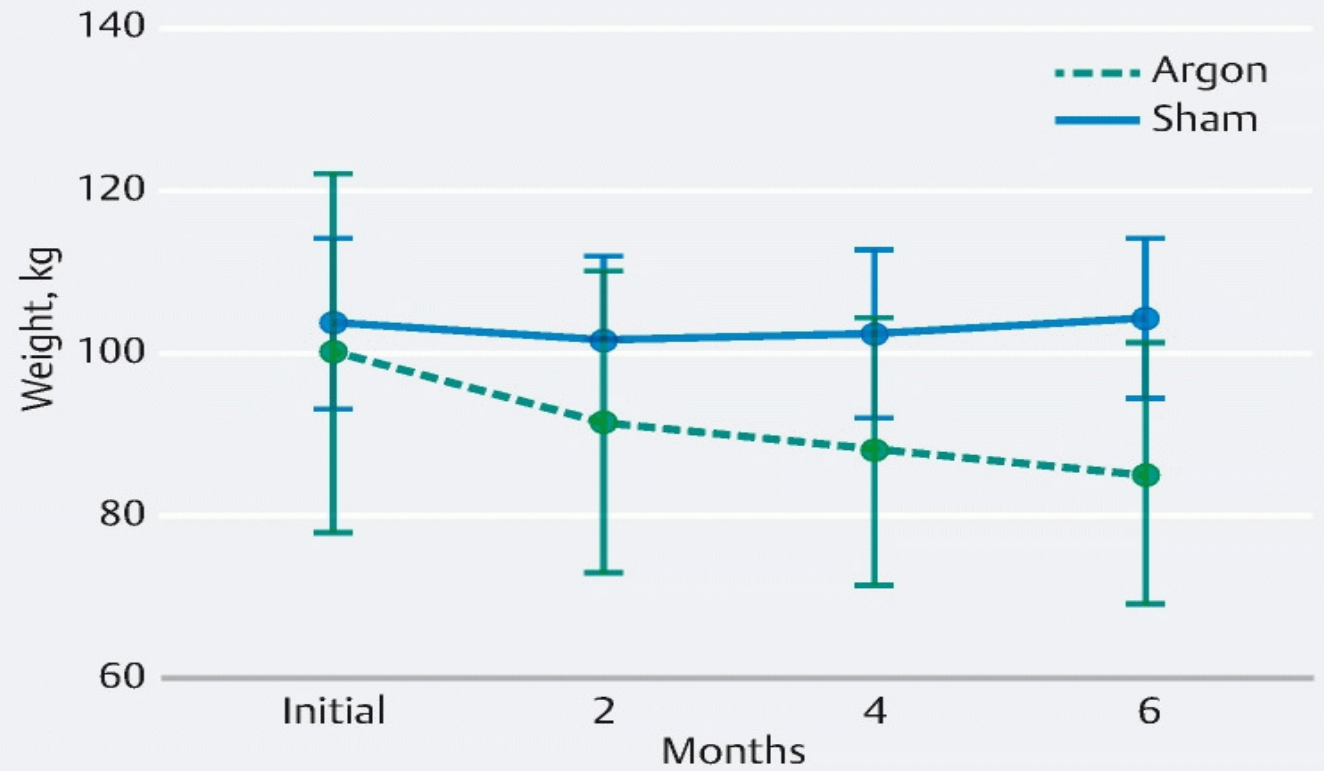


Result - 6 months



Roux-en-Y gastric bypass pouch outlet reduction using argon plasma coagulation to treat weight regain: a randomized controlled trial with a sham control group

R.J. Fittipaldi-Fernandez et al.
Endosc. Int. Open, 2023



21 pz APC
20 pz Sham group

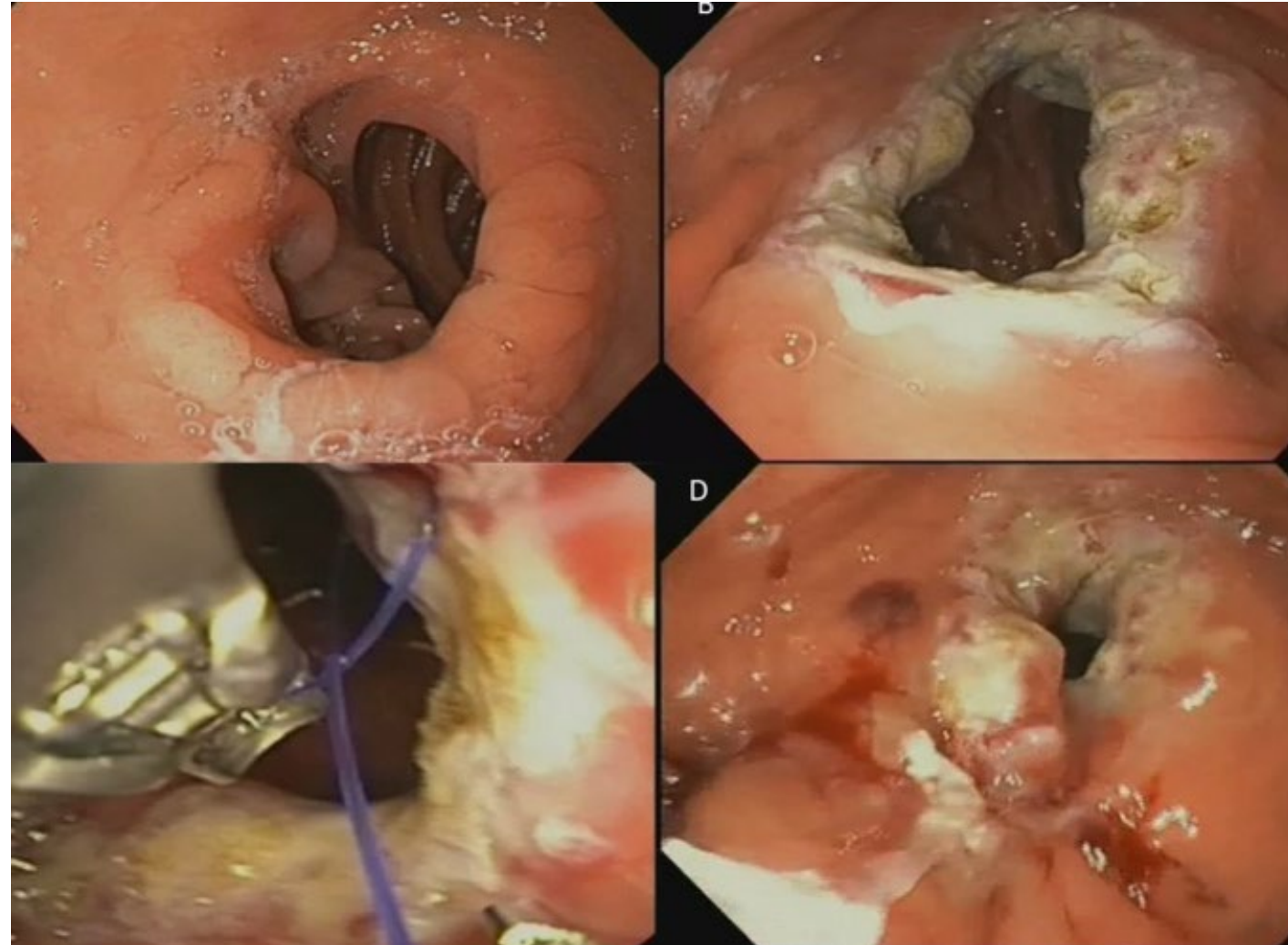
$p < 0.0001$

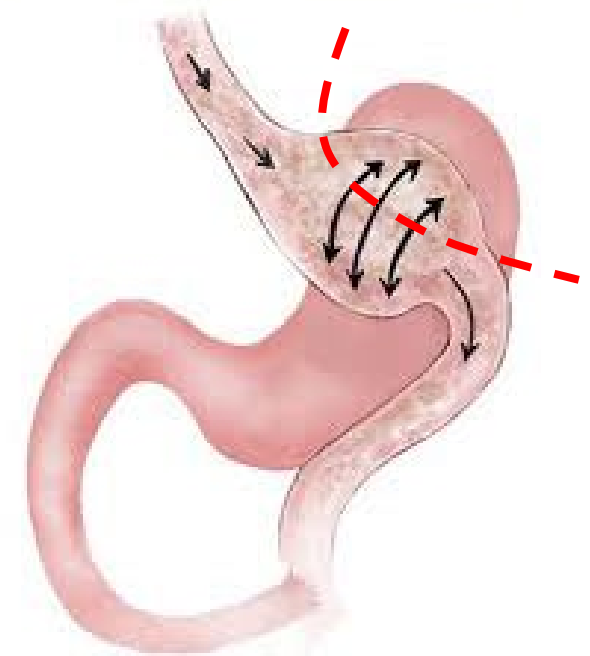
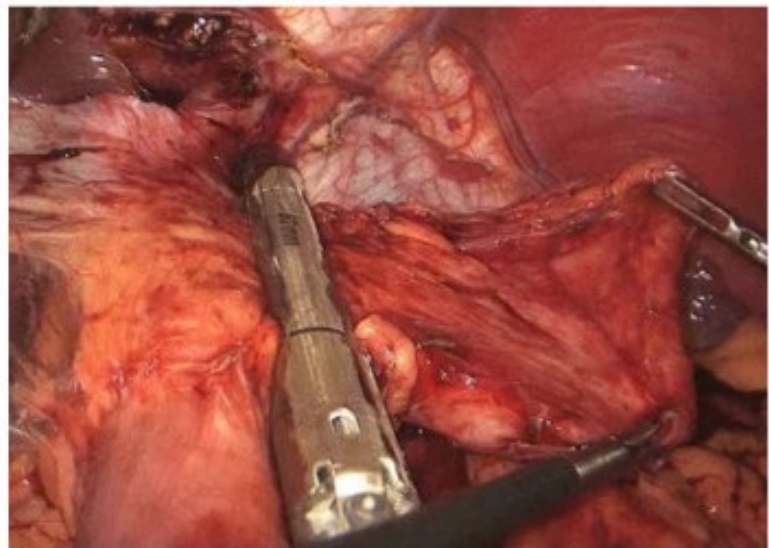
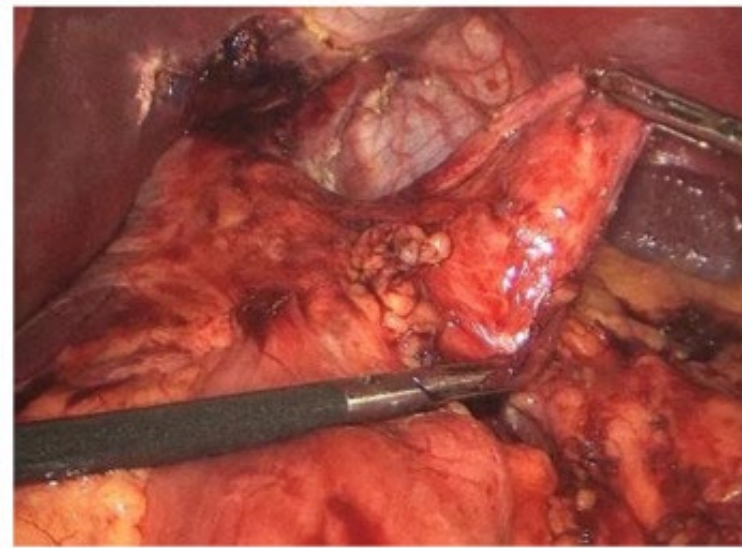
Long-term Outcomes of Transoral Outlet Reduction (TORe) for Dumping Syndrome and Weight Regain After Roux-en-Y Gastric Bypass

V. Pontecorvi et al. *Obes. Surg.* 2023

n=56

	EWL (%)
6 mesi	30.2 (14–44.8)
12 mesi	33.7 (3.8–48.7)
24 mesi	34.2 (9.9–57.8)





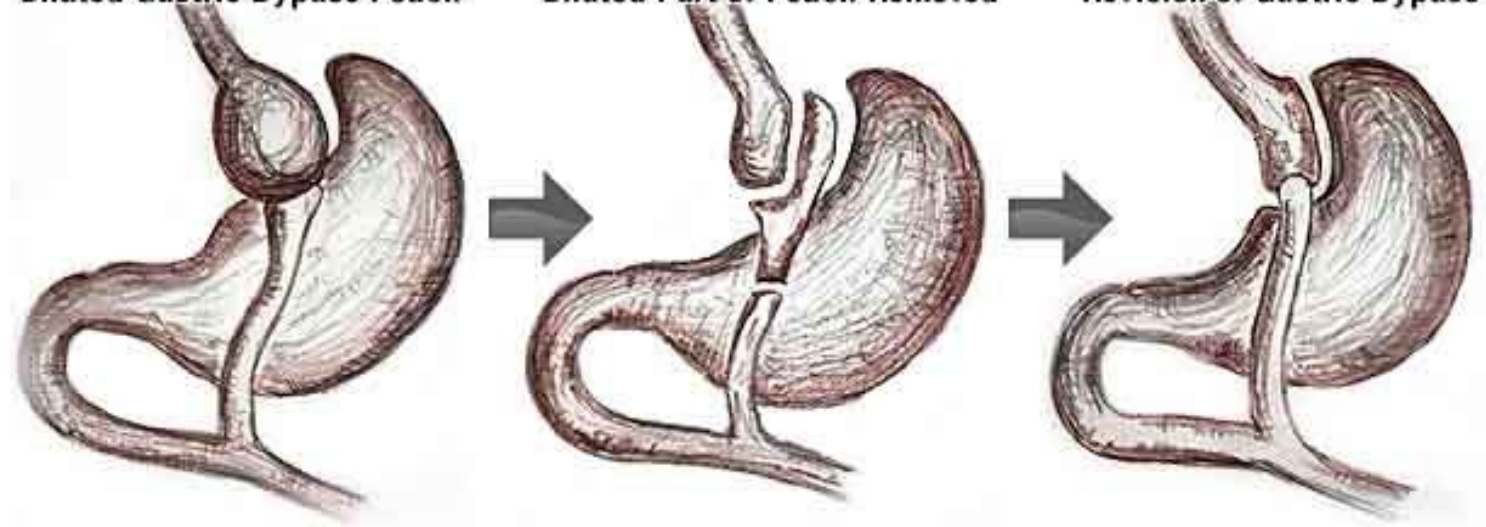
Pouch resizing

Pouch resizing + G-J anastomosis resizing

Dilated Gastric Bypass Pouch

Dilated Part of Pouch Removed

Revision of Gastric Bypass

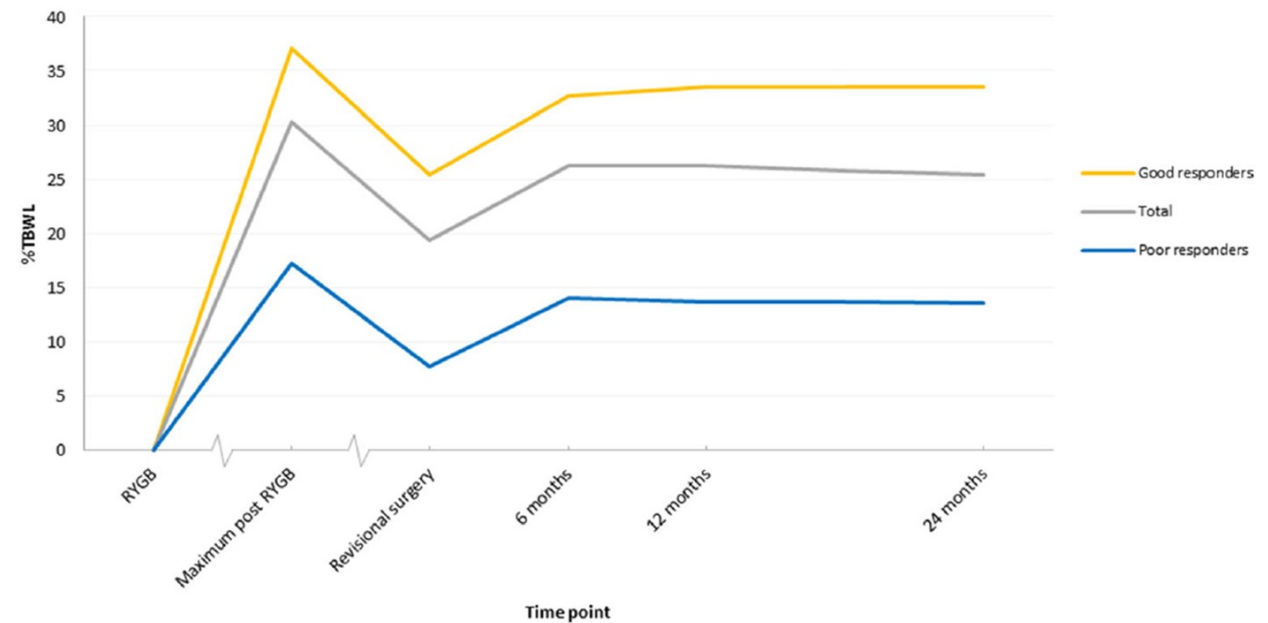


Banding the Pouch with a Non-adjustable Ring as Revisional Procedure in Patients with Insufficient Results After Roux-en-Y Gastric Bypass: Short-term Outcomes of a Multicenter Cohort Study

Abel Boerboom¹  • Edo Aarts¹ • Volker Lange² • Andreas Plamper³ • Karl Rheinwalt³ • Katja Linke⁴ • Ralph Peterli⁴ • Frits Berends¹ • Eric Hazebroek¹

• Rationale:

- It is postulated that the placement of a ring in case of RYGB failure could counteract WR and improve WL
- The ring may delay the food passage
- **Multicenter study, 4 centers in The Netherlands, Germany, Switzerland**
- **79 patients**
 - **FU 1 year 86%**
 - **FU 2 years 61%**
- **TWL% improved by 7 to 26%**



Eighteen (23%) rings were removed, most often due to dysphagia

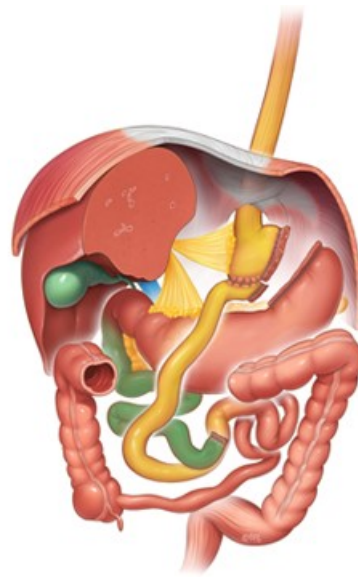
Limb distalization

Types, Safety, and Efficacy of Limb Distalization for Inadequate Weight Loss After Roux-en-Y Gastric Bypass

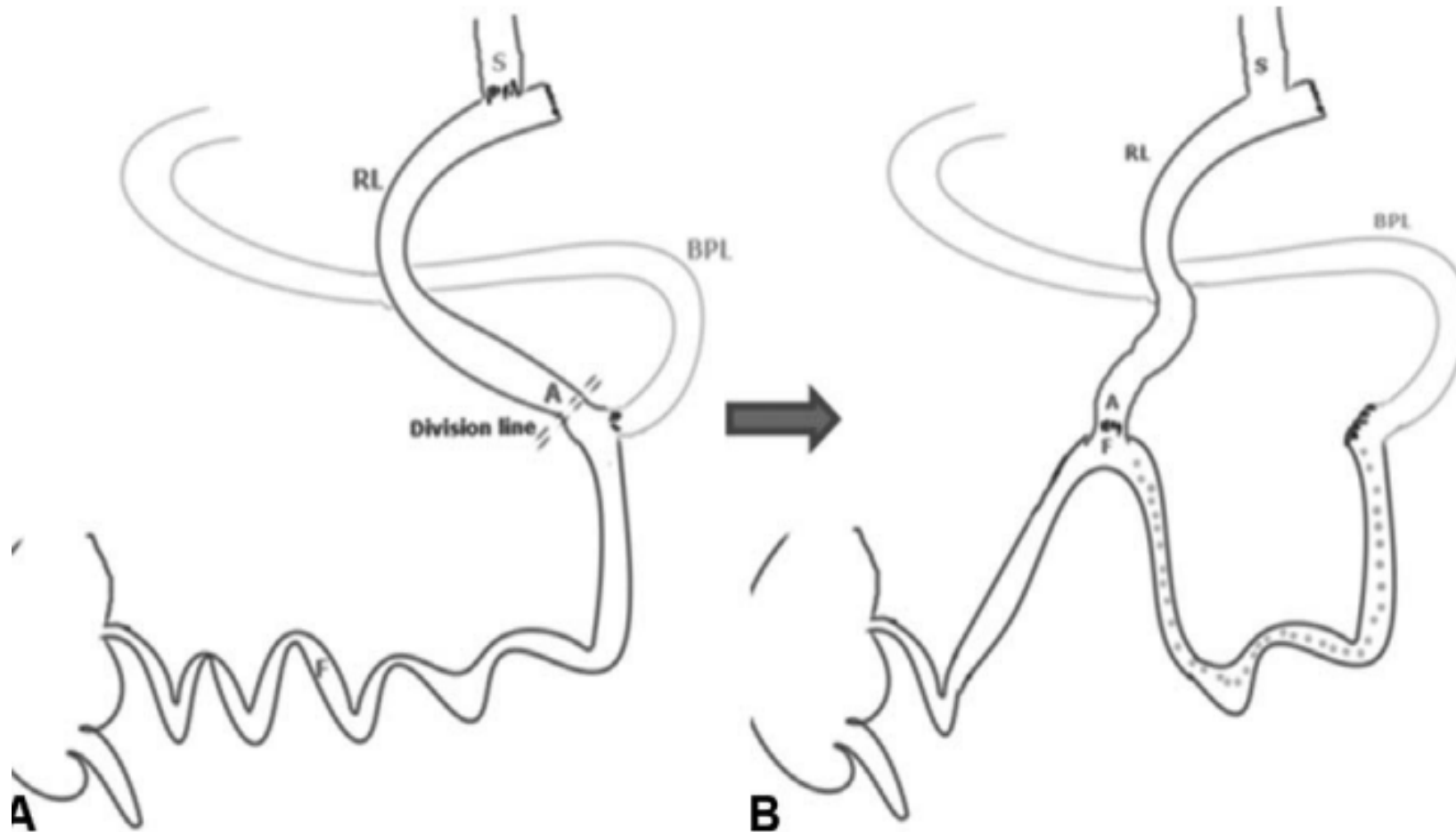
A Systematic Review and Meta-analysis With a **Call for Standardized Terminology**

Hosam Hamed, MD,✉ Mahmoud Ali, MD, and Youssif Elmahdy, MD

Rationale: shortening the common tract would add malabsorption eventually resulting in better weight loss

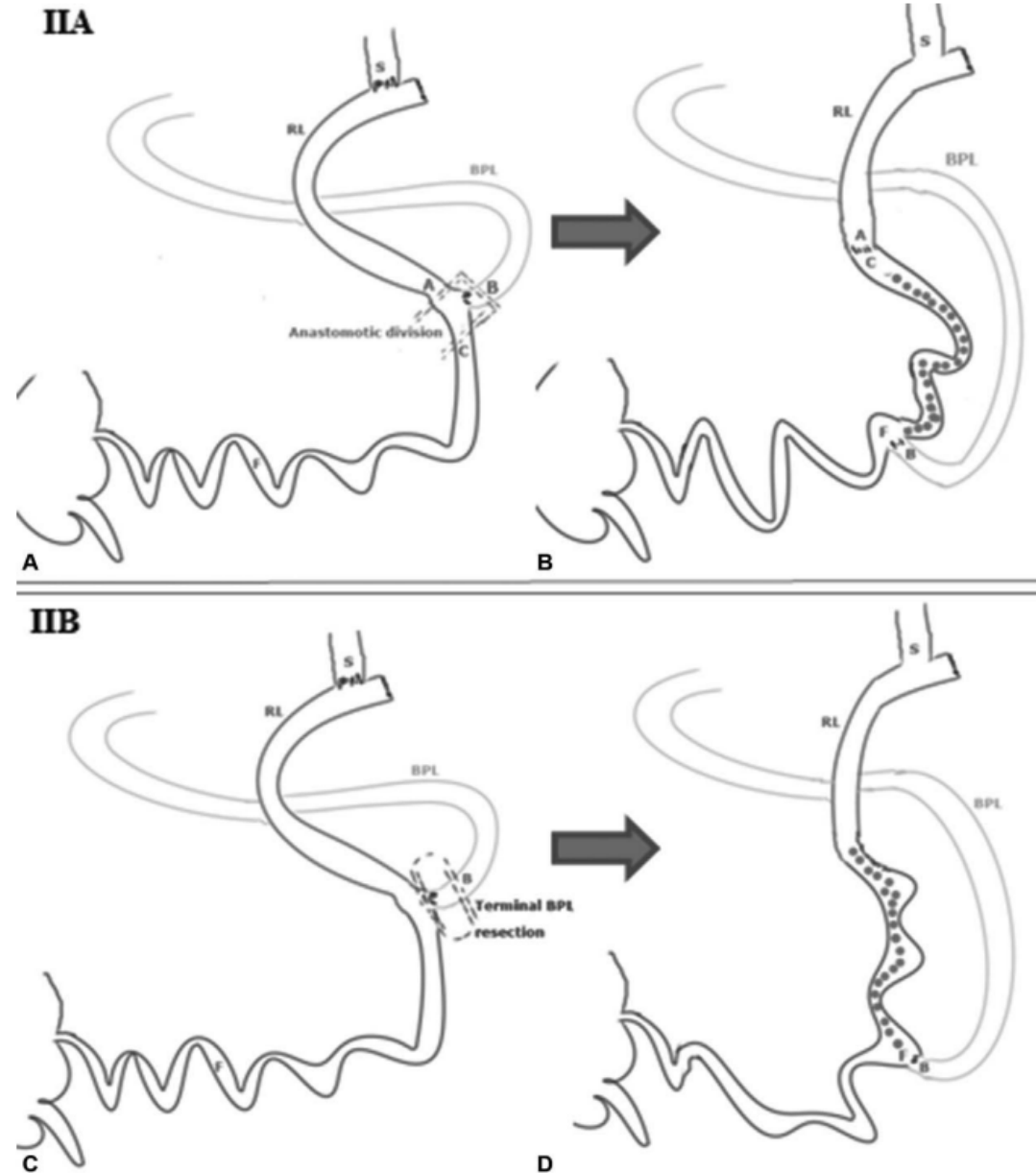


TYPE I: elongation of the biliopancreatic limb

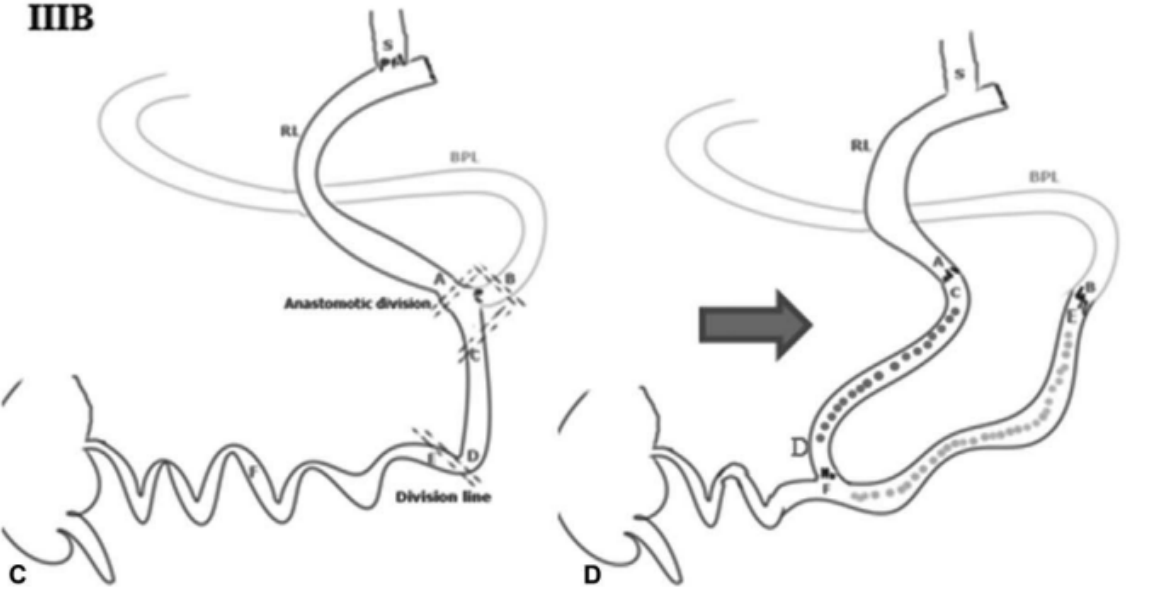
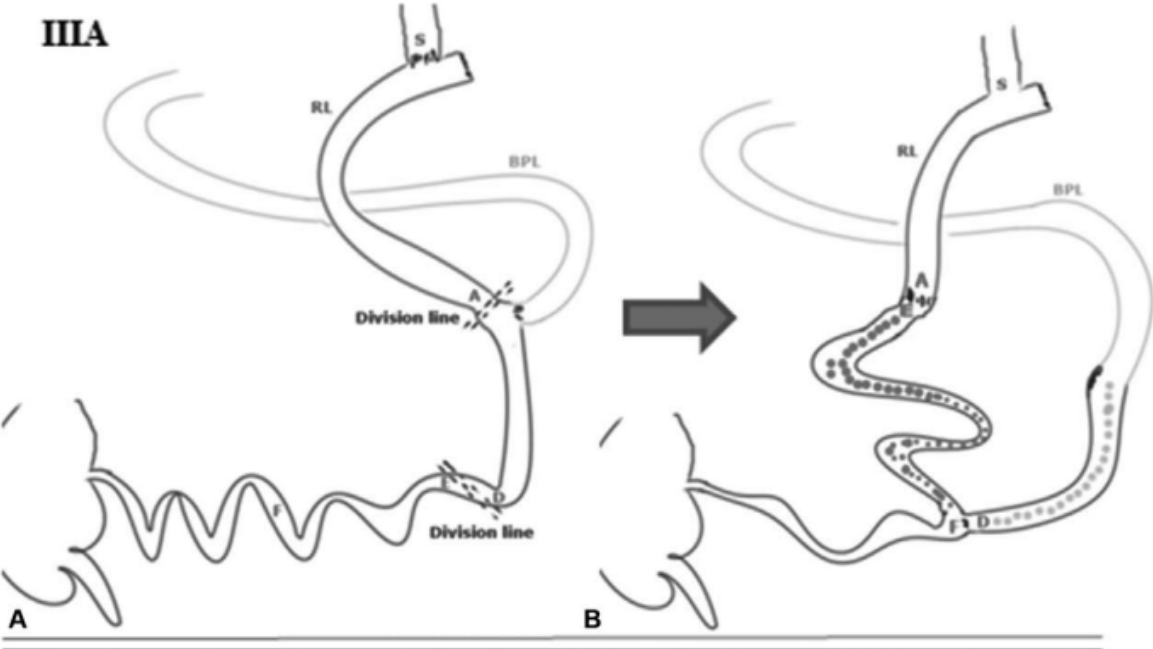


Most frequently reported technique

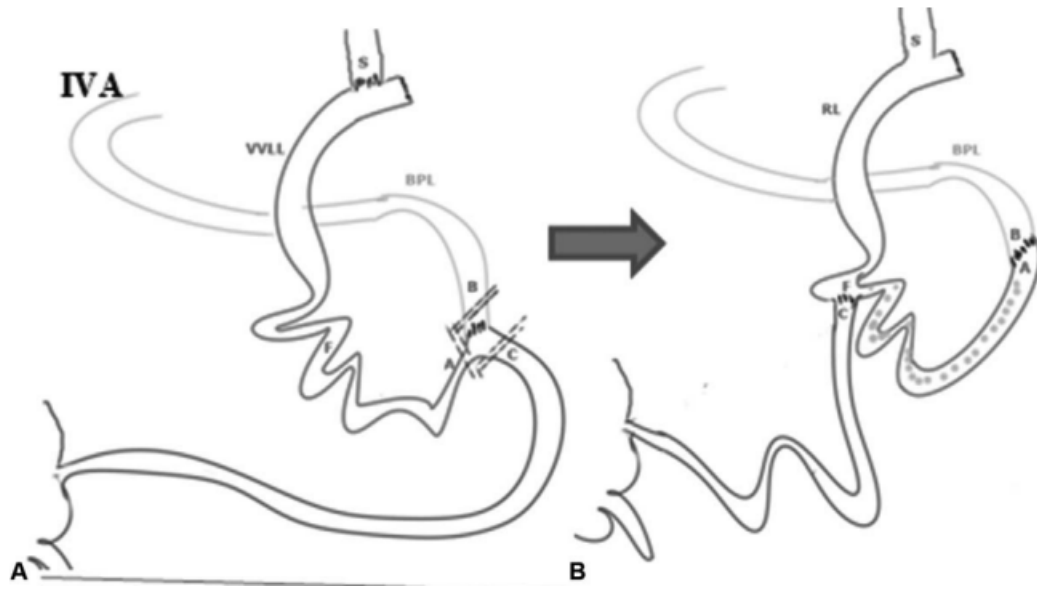
Type II: elongation of the Roux limb



Type III: elongation of both the biliopancreatic and the Roux limb

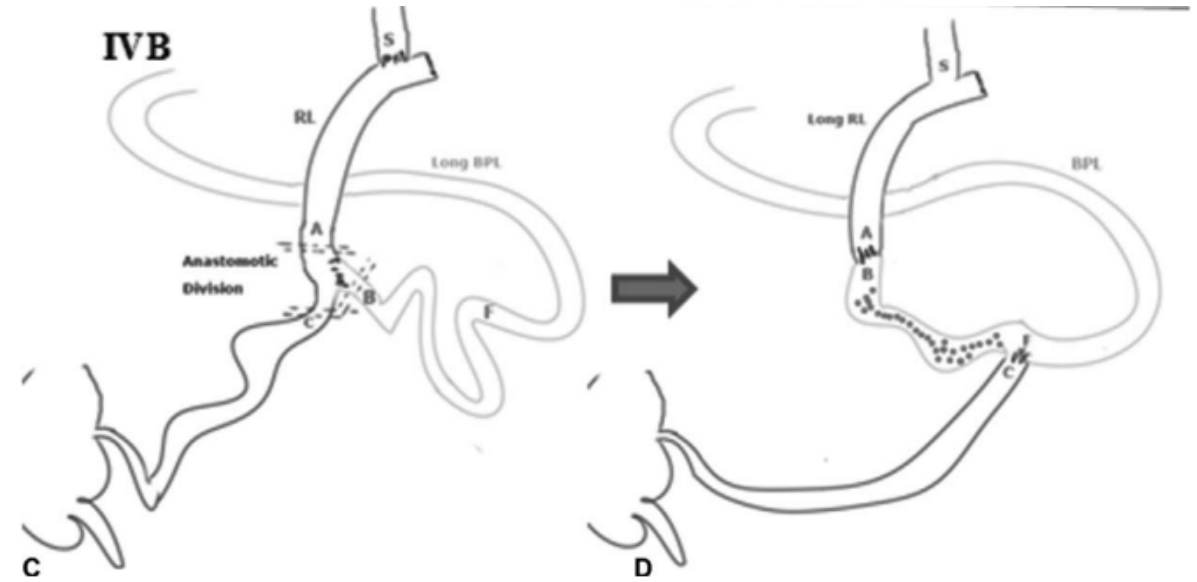


Type IV: elongation in case of long limb (150 cm) Roux limb



Type IV A

Elongation of biliopancreatic limb using the Roux limb

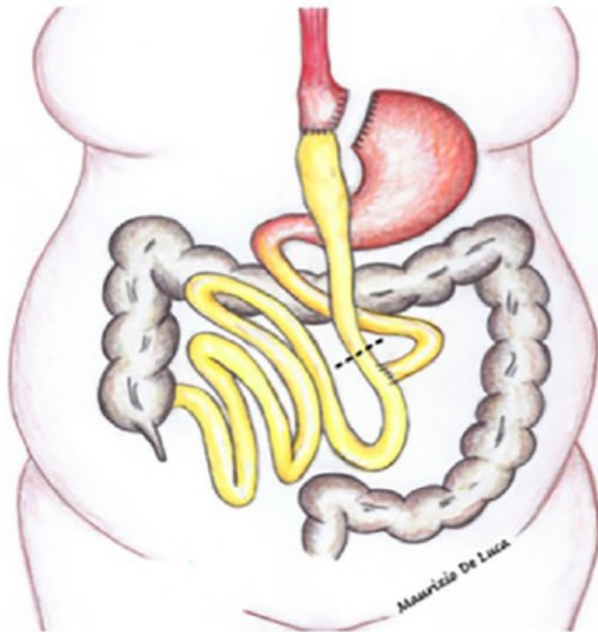


Type IV B

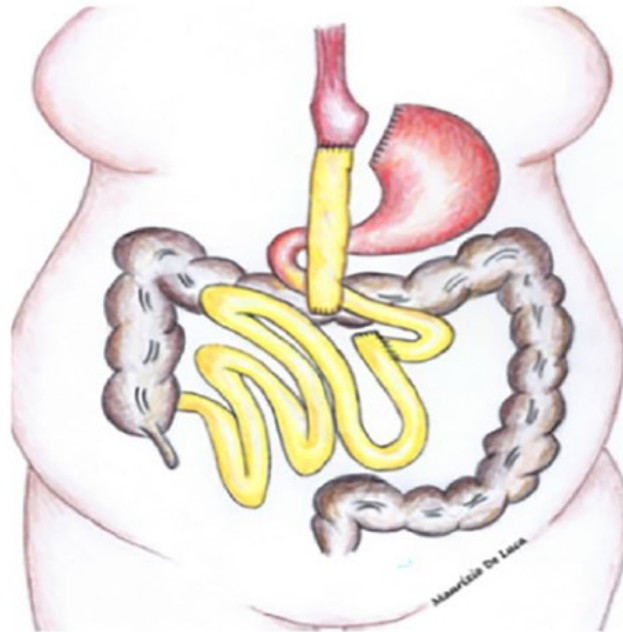
Elongation of the Roux limb using the biliopancreatic limb

Single Anastomosis Jejunio-ileal (SAJI): a New Model of Malabsorptive Revisional Procedure for Insufficient Weight Loss or Weight Regain After Roux-en-Y Gastric Bypass

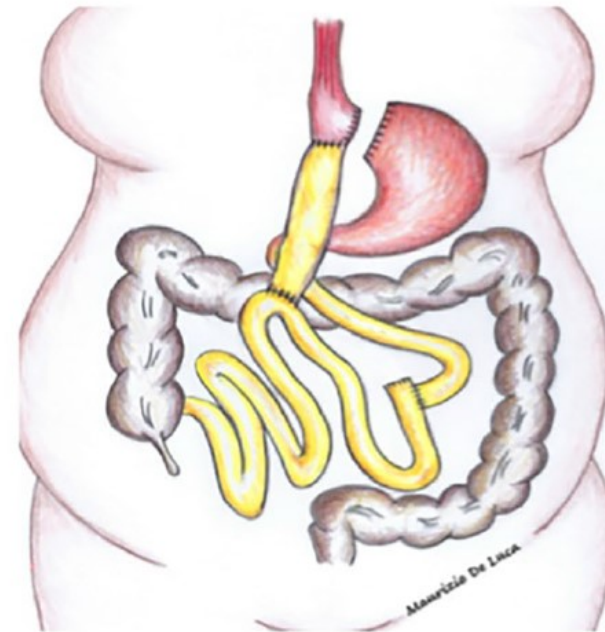
Maurizio De Luca¹  · Giacomo Piatto² · Alberto Sartori² · Monica Zese³ · Cesare Lunardi² · Simone Targa⁴ · Cristiano Giardiello⁵ · Paolo Gentileschi⁶ · Jacques Himpens⁷



Roux-en Y Gastric Bypass



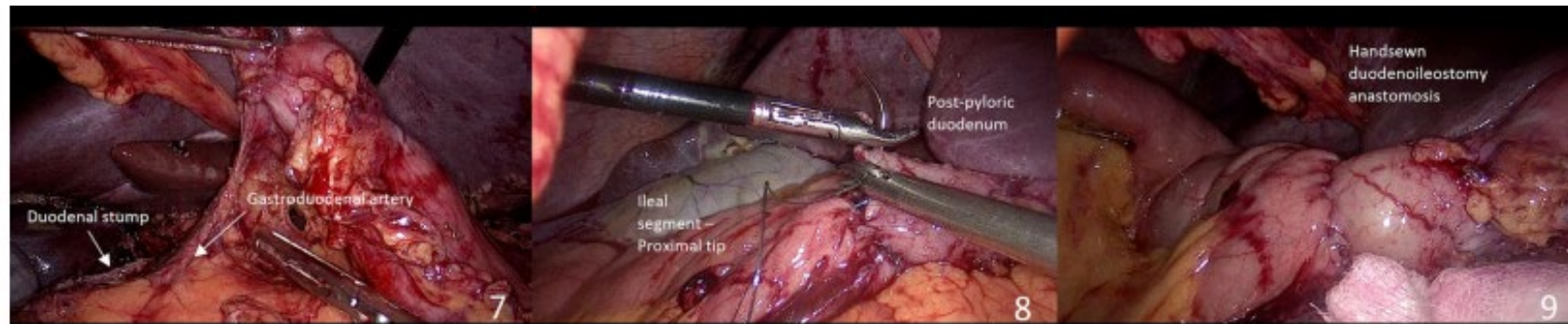
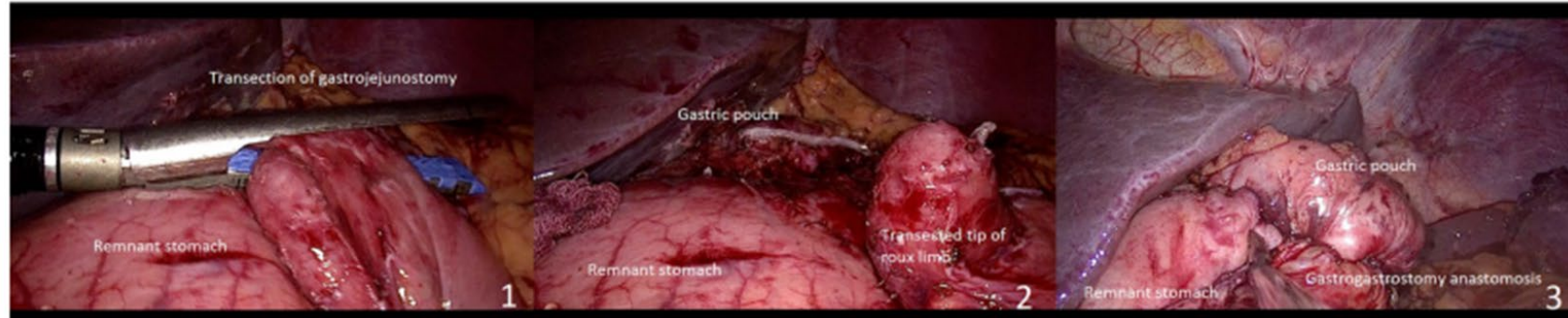
Transection on the alimentary limb at 30 cm from gastro-jejunal anastomosis



Jejunio-ileal anastomosis 250-300 cm proximal to the ileocecal valve (ileal) and 30 cm distal from the gastro-jejunal anastomosis on the alimentary limb of the gastric bypass (jejunal)

Conversione a duodenal switch

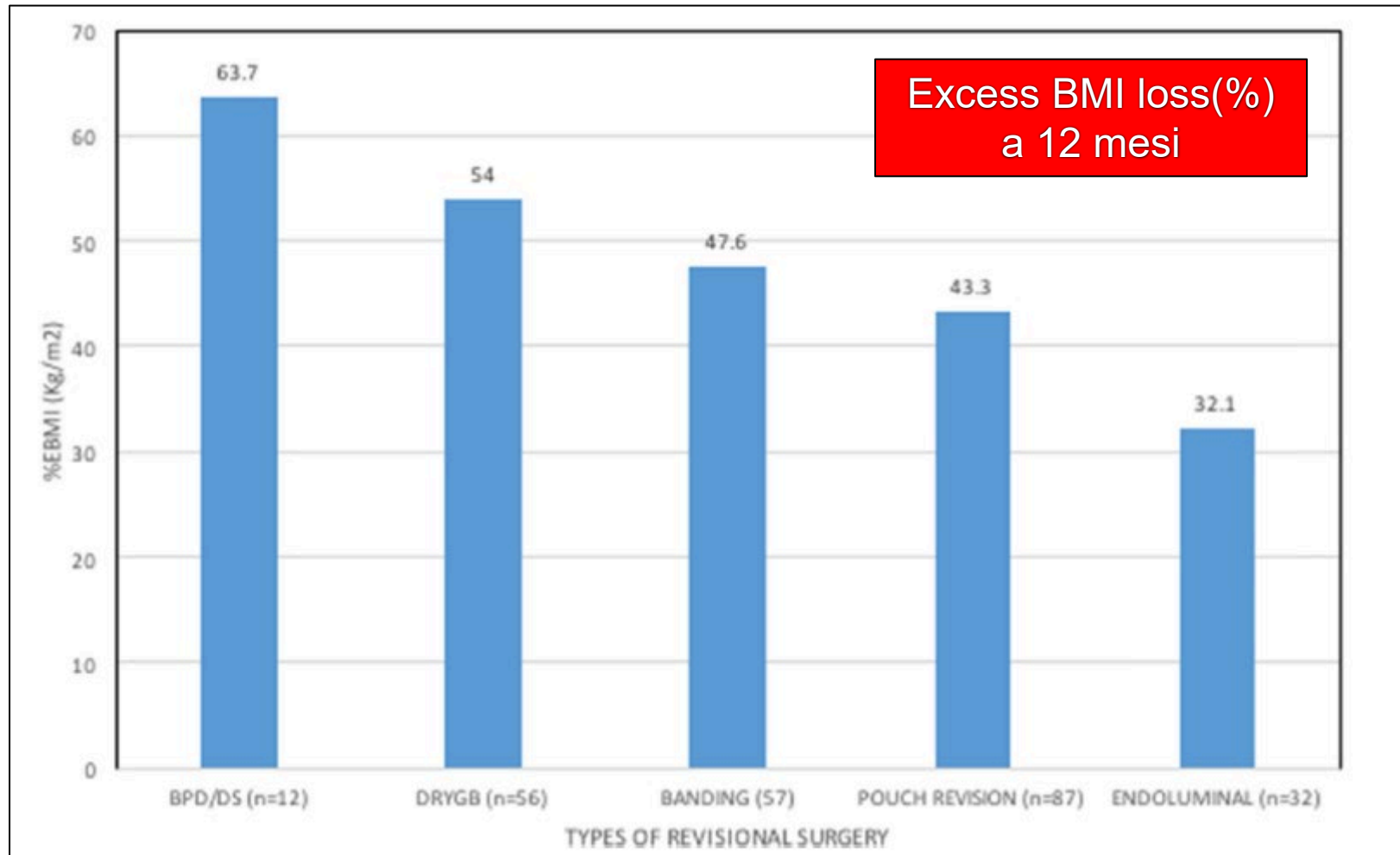
1. Resezione del complesso anastomotico G-D
2. Anastomosi gastro-gastrica
3. Sleeve Gastrectomy
4. Sezione del duodeno ed anastomosi ileale
5. Distalizzazione dell' anastomosi digiuno-digiunale

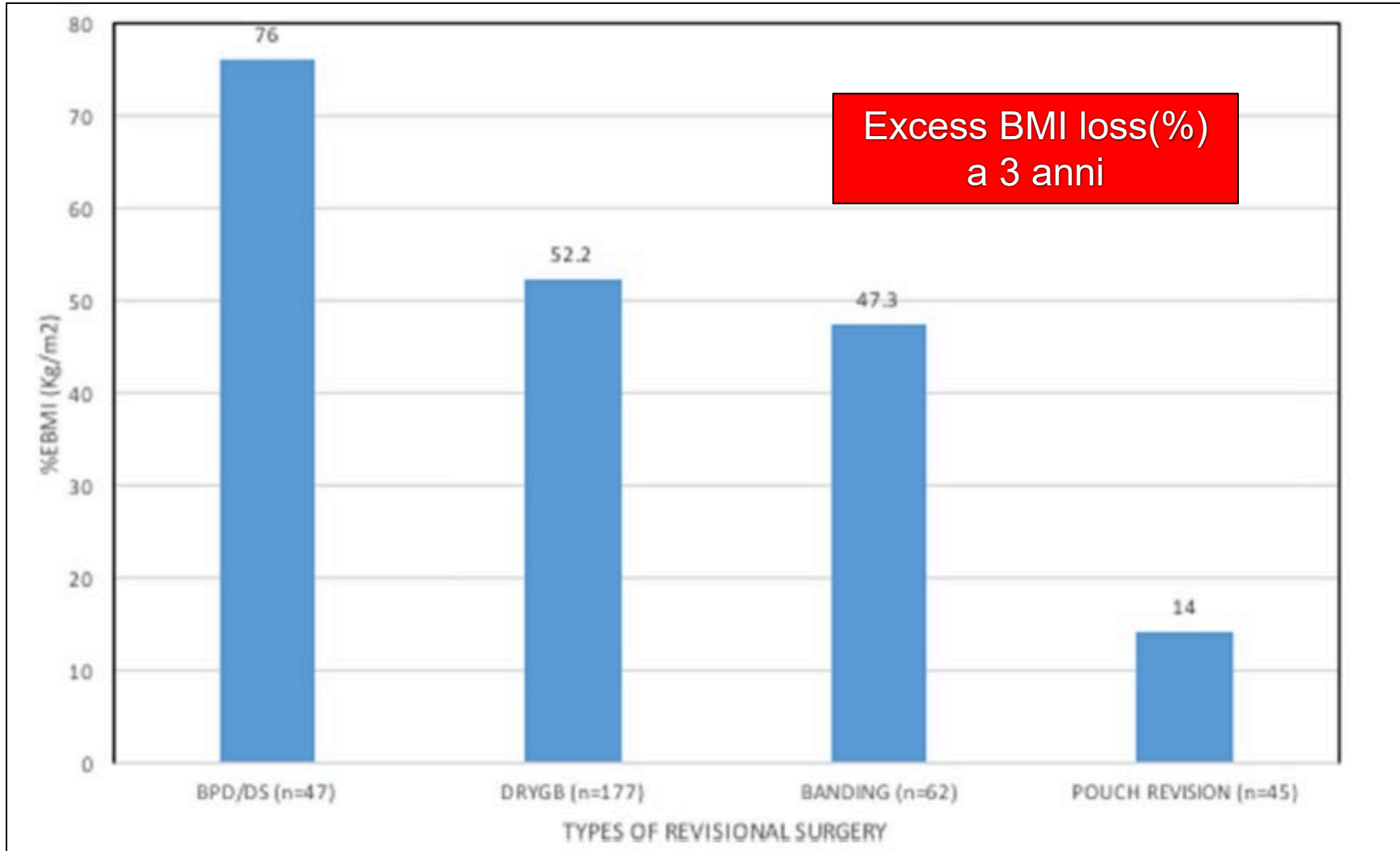


Revision of Roux-En-Y Gastric Bypass for Weight Regain: a Systematic Review of Techniques and Outcomes

Daniel D. Tran¹ • Ifeanyi D. Nwokeabia² • Stephanie Purnell² • Syed Nabeel Zafar¹ • Gezzer Ortega¹ • Kakra Hughes¹ • Terrence M. Fullum¹

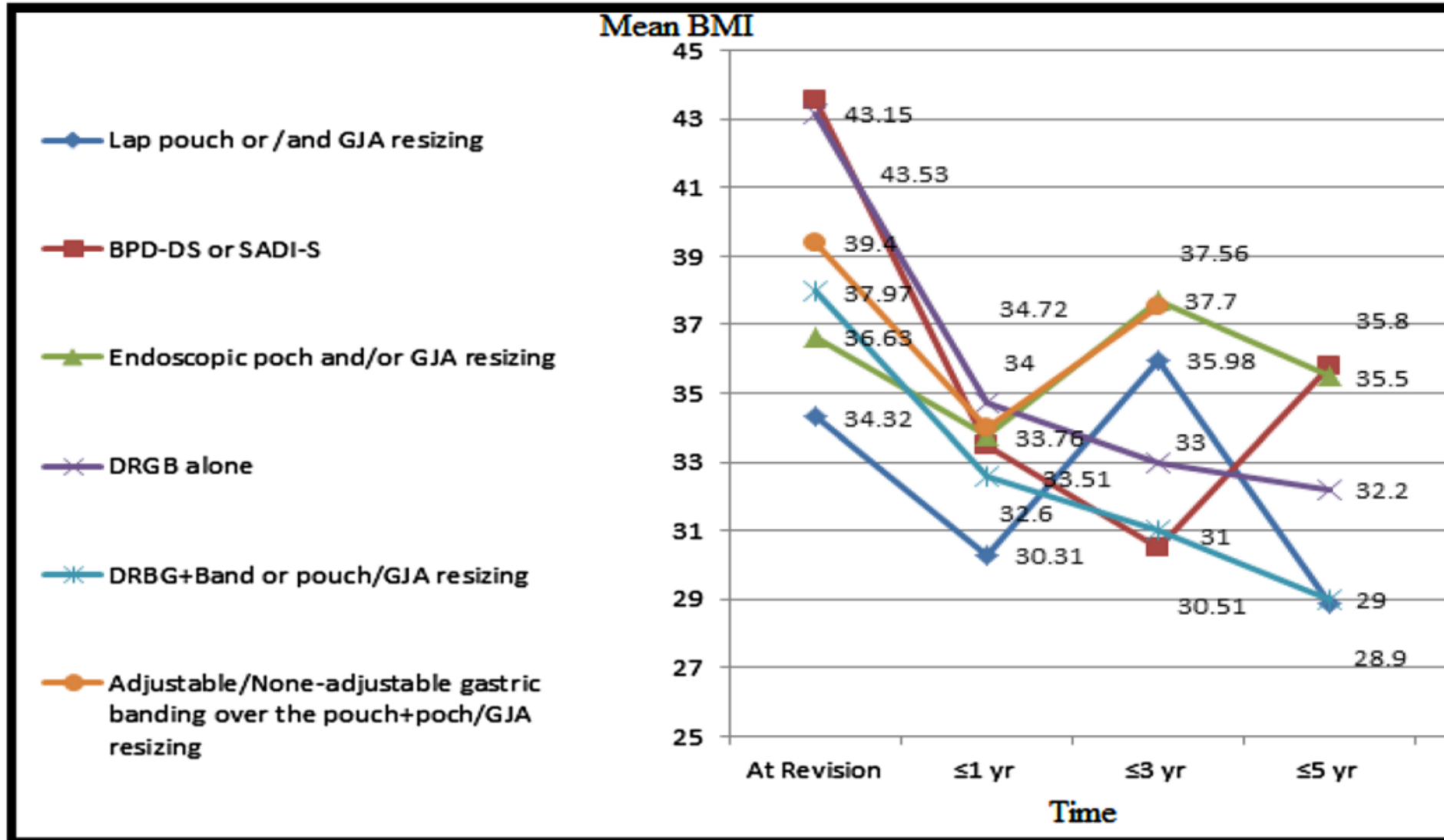
Obes Surg, 2017





Revision procedures after initial Roux-en-Y gastric bypass, treatment of weight regain: a systematic review and meta-analysis

M. Kermansaravi et al. , Updates in Surgery 2021



Review inclusiva di 41 articoli per un totale di 1403 procedure di revisione, suddivise come in figura

Conclusioni

- L'incidenza di fallimento di RYGB del 20-30% con significative differenze in relazione ai criteri di definizione utilizzati.
- L'accurata selezione e preparazione del paziente candidato a Chirurgia Bariatrica primaria, un intervento correttamente eseguito e un accurato follow up possono contribuire alla riduzione dell'incidenza di fallimenti.
- La valutazione multidisciplinare e la diagnostica preoperatoria sono fondamentali prima di programmare un intervento di revisione
- Il paziente va bene informato sui rischi e sui risultati attesi



S.I.C.O.B.

XXXII CONGRESSO
NAZIONALE SICOB

23 - 25 MAGGIO 2024
G I A R D I N I
N A X O S



Grazie