Recurrent weight gain after RYGB: options

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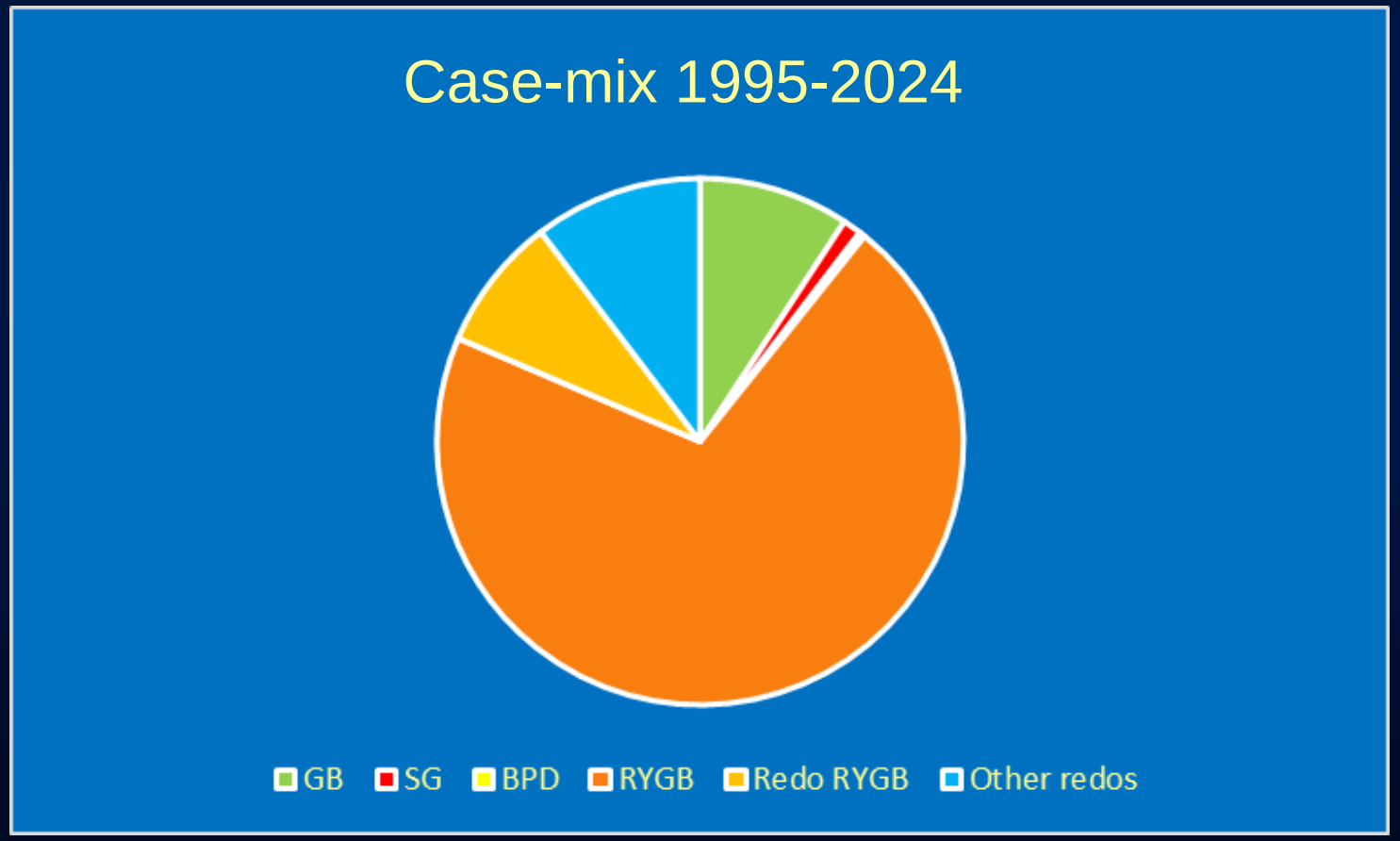
Disclosures

Nothing to disclose



RWG after Roux-en-Y gastric bypass

- What was the situation before RYGB ?
- Was RYGB the first bariatric procedure ?
- What was the initial clinical response (%TWL @ nadir, effect on obesity-related complications) ?
- When and how did RWG start ?
- How much RWG ?
- Does RWG affect obesity-related complications ?

RWG after Roux-en-Y gastric bypass

- What is the current situation of the patient ?
- Nutritional status ?
- What are the goals of the patient ?
- Is there a defect in the RYGB anatomy that is likely responsible for RWG and amenable to correction
- Is the patient willing to undergo another procedure ?
- What "price" is the patient ready to pay for improvement ?
- Will insurance cover a new procedure ?

Treatment of RWG

- Careful dietary evaluation and counseling
- Behavioral evaluation (eating behavior, physical activity)
- OMMs

.....

- Is there a technical problem with the RYGB ?
  - Pouch size, HH, Candy cane, GJS size, gastro-gastric fistula, dilatation of the Roux limb
- Operative notes (difficulty, limb lengths, pouch size)
- CT-scan, Endoscopy, upper GI series

Anatomical problems

Pouch dilatation ± GJS dilatation

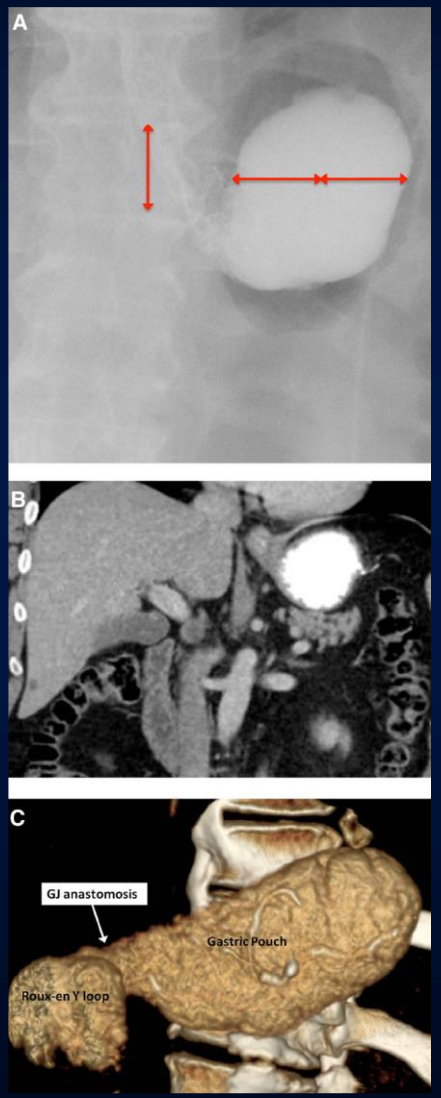
Options:

Endoscopic narrowing

Suturing

Argon

Surgical re-sizing



Ianelli et al, SOARD 2013

Endoscopic approaches

Argon plasma coagulation

Endoscopic suturing

Combination

Minimally invasive

Repeatable

Argon plasma coagulation

Argon Plasma Coagulation and Gastric Bypass—A Novel Solution to Stomal Dilation

Ahmad Aly

OBES SURG (2009) 19:788–790
DOI 10.1007/s11695-008-9763-9

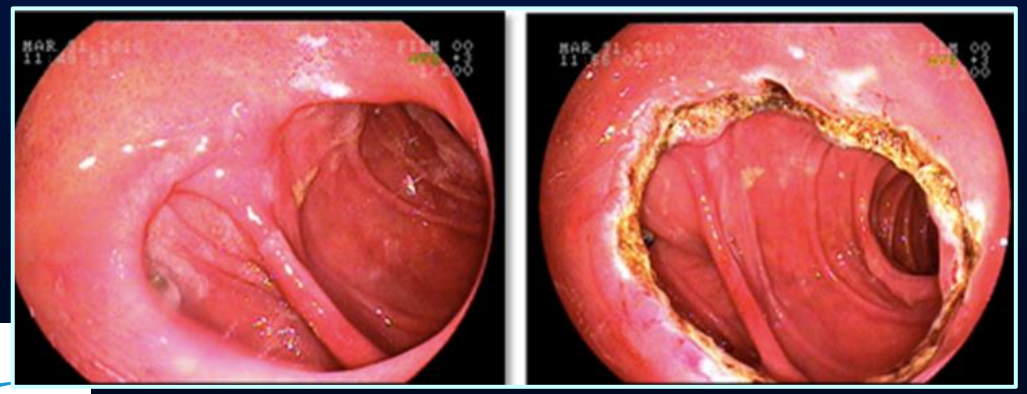
Case report after redo RYGB
- 30 kg after 12 months

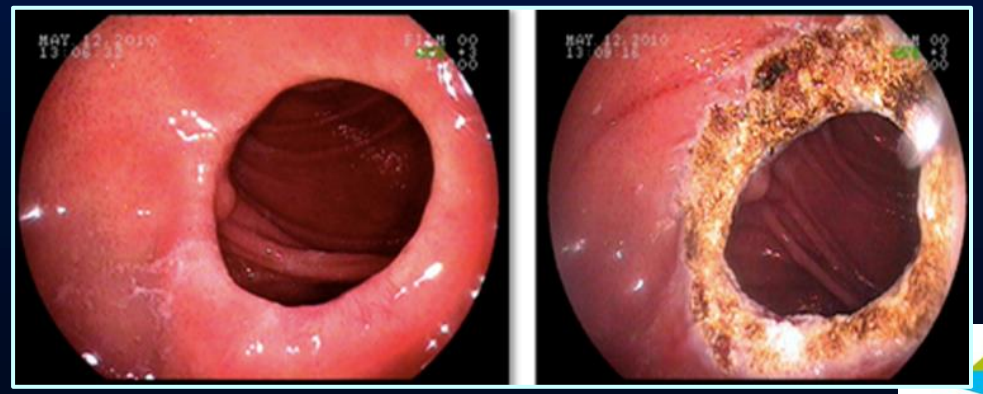
Argon Plasma Coagulation of Gastrojejunal Anastomosis for Weight Regain After Gastric Bypass

Giorgio A. P. Baretta · Helga C. A. W. Alhinho · Jorge Eduardo F. Matias · João Batista Marchesini · João Henrique F. de Lima · Celso Empinotti · Josemberg M. Campos

OBES SURG (2015) 25:72–79
DOI 10.1007/s11695-014-1363-2

30 patients with RWG submitted to 3 APC sessions at 2 months interval
- 15 kg 2 months after last APC





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

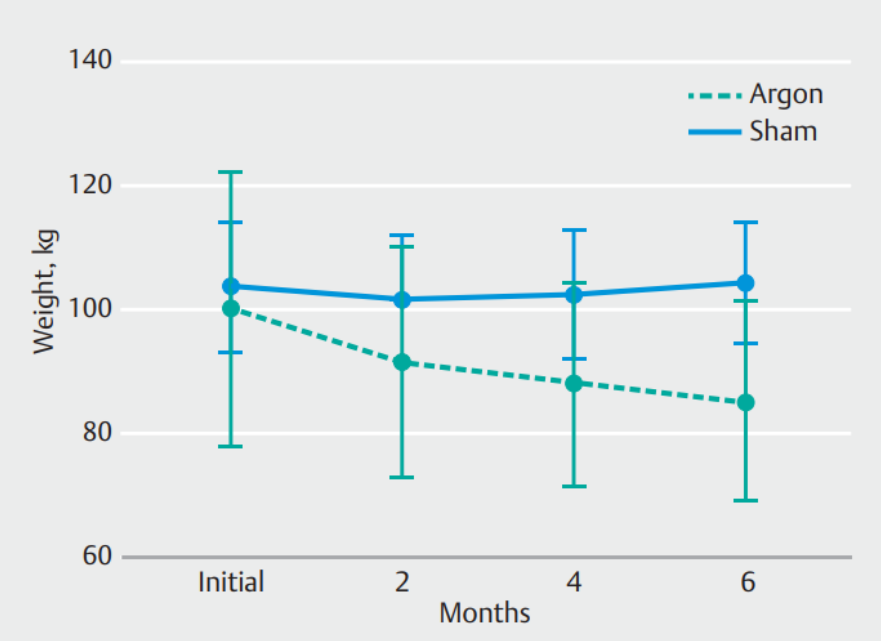
OPEN ACCESS

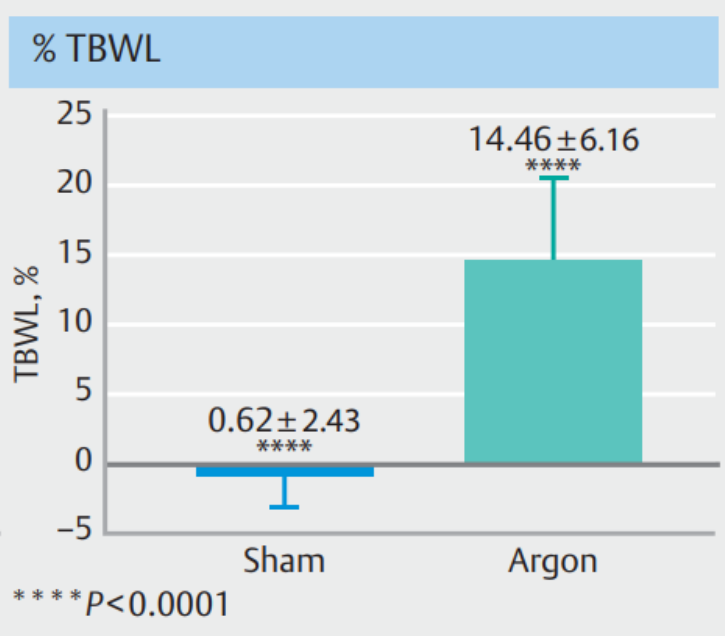
Endosc Int Open 2023; 11: E426–E434

Authors
Ricardo José Fittipaldi-Fernandez[1], Idiberto José Zotarelli-Filho[2,3,4], Marcelo Falcão de Santana[5,6], João Henrique Felicio de Lima[7], Fernando Santos Silva Bastos[5,6], Sérgio Alexandre Barrichello-Junior[8], Newton Teixeira dos Santos[9], Marcella Guedes[1], Aline Fittipaldi-Fernandez[1]

RCT comparing results of APC vs MDT approach in 41 patients

Evaluation after 6 months





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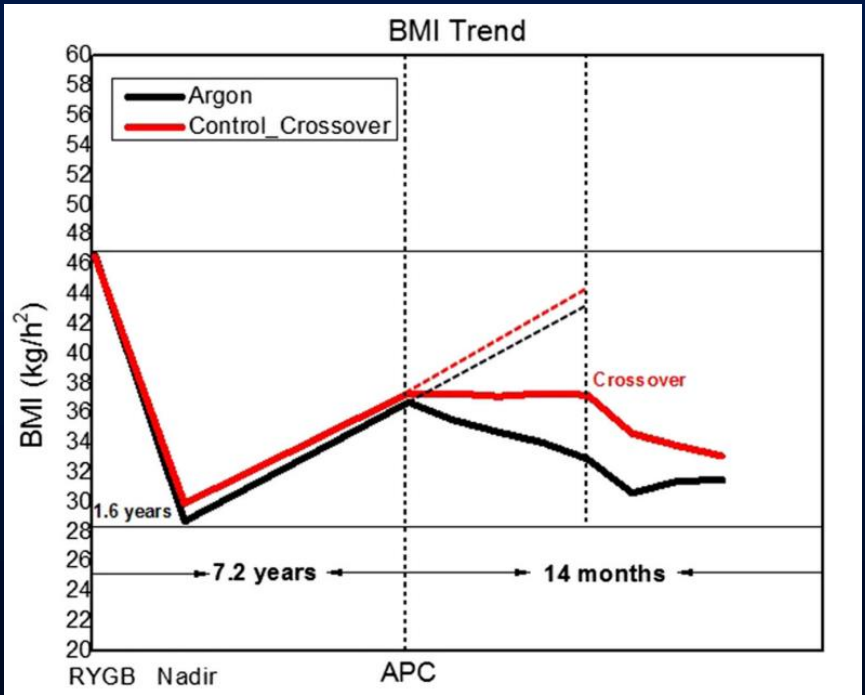
Argon plasma coagulation

Endoscopic Argon Plasma Coagulation vs. Multidisciplinary Evaluation in the Management of Weight Regain After Gastric Bypass Surgery: a Randomized Controlled Trial with SHAM Group

Obesity Surgery (2020) 30:1904–1916

Luiz Gustavo de Quadros[1,2,3,4] · Manoel Galvão Neto[1,5] · João Caetano Marchesini[1] · André Teixeira[6] · Eduardo Grecco[1] · Roberto Luiz Kaiser Junior[7,8] · Natan Zundel[9] · Idiberto José Zotarelli Filho[8] · Thiago Ferreira de Souza[10] · Admar Concon Filho[1] · Lyz Bezerra da Silva[4] · Almino Cardoso Ramos[1,11] · Álvaro Antônio Bandeira Ferraz[4] · Josemberg Marins Campos[4]



42 patients randomized to APC or MDT treatment with cross-over after 6 months

APC associated with:

- Better weight
- Increased satiety
- Better QOL

Early results

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Transoral Outlet Reduction (TORe)

Peroral endoscopic reduction of dilated gastrojejunal anastomosis after Roux-en-Y gastric bypass: a possible new option for patients with weight regain

C. C. Thompson,[1] J. Slattery,[1] M. E. Bundga,[1] D. B. Lautz[2]

Surg Endosc (2006) 20: 1744–1748
DOI: 10.1007/s00464-006-0045-0

- Pilot study with 8 patients submitted to endoscopic suturing using endo-Cinch
- Adequate weight loss in some patients, but not all
- Repeat procedure in 3 patients
- Safety of the procedure

Five-year outcomes of transoral outlet reduction for the treatment of weight regain after Roux-en-Y gastric bypass

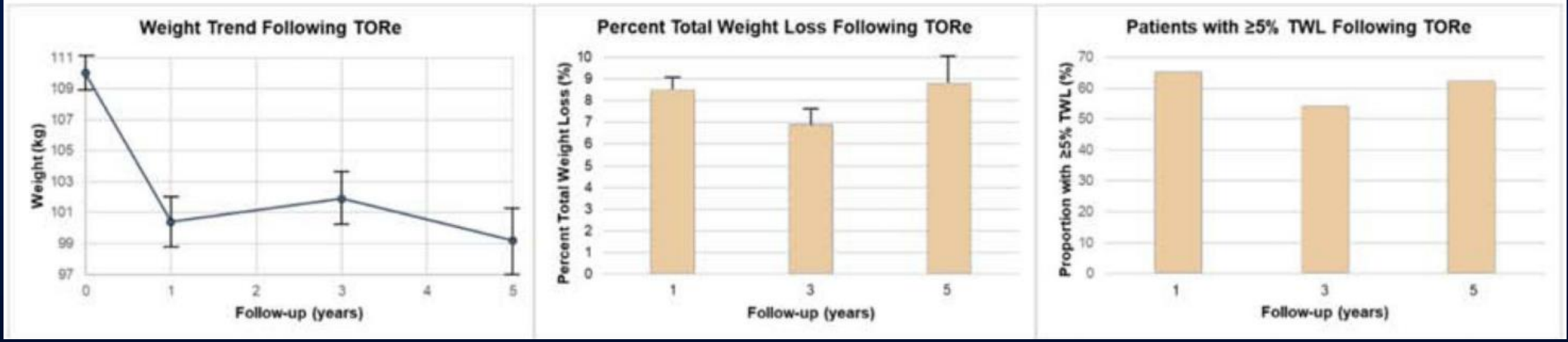
Pichamol Jirapinyo, MD, MPH[1], Nitin Kumar, MD[2], Mohd Amer AlSamman, MD[3], Christopher C. Thompson, MD, MSc[1]

Gastrointest Endosc. 2020 May ; 91(5): 1067–1073.

331 patients with RWG after RYGB submitted to TORe

Retrospective study with FU up to 5 years

Various adjunctive therapies in 39 % of patients



Conclusion: TORe appears to be safe, effective, and durable at treating weight regain after RYGB

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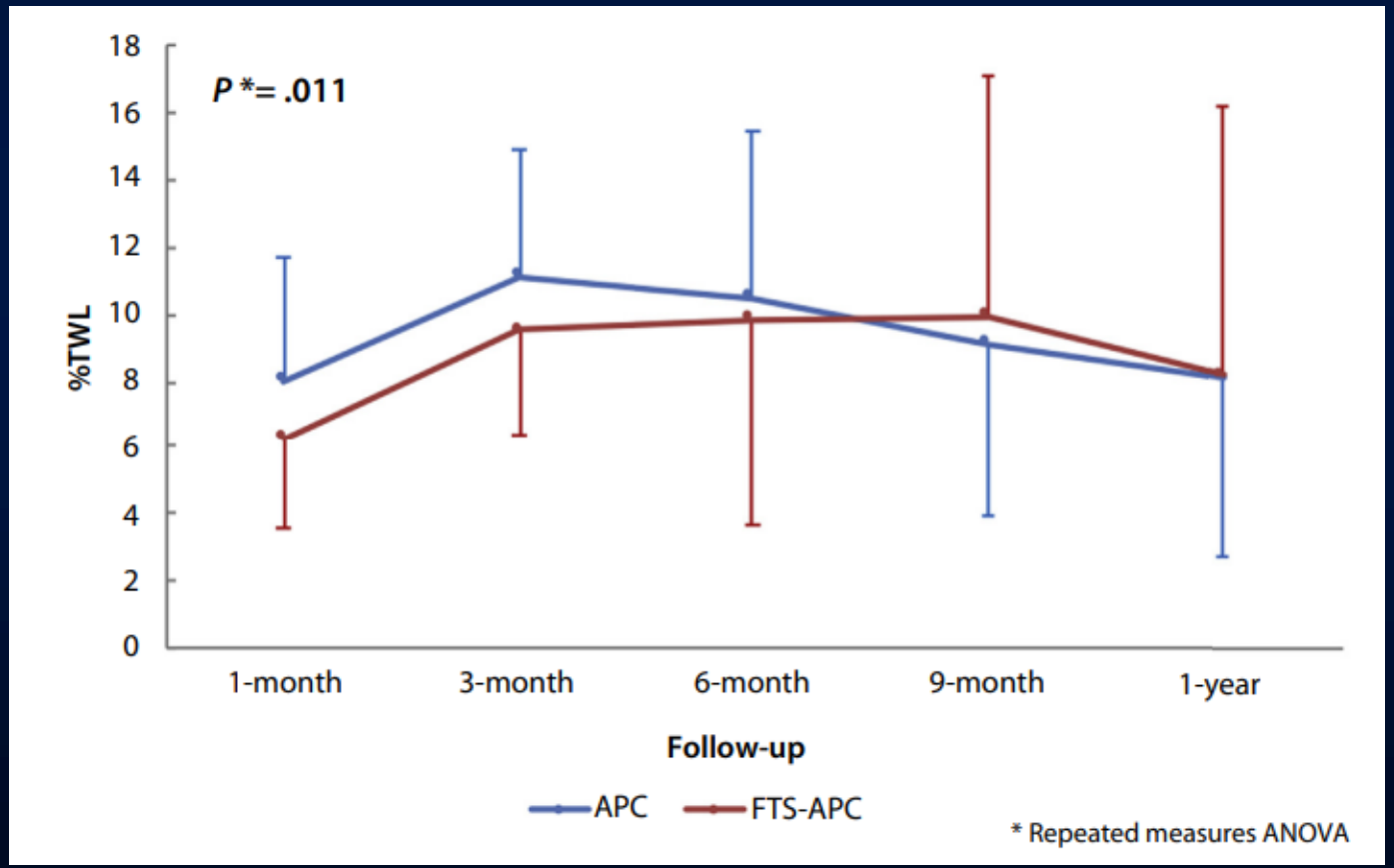
Argon plasma coagulation alone versus argon plasma coagulation plus full-thickness endoscopic suturing to treat weight regain after Roux-en-Y gastric bypass: a prospective randomized trial (with videos)

Vitor Ottoboni Brunaldi, MD, MSc,[1,2] Galileu Ferreira Ayala Farias, MD,[1] Daniel Tavares de Rezende, MD,[1] Gabriel Cairo-Nunes, RD,[1] Daniel Riccioppo, MD, PhD,[3] Diogo Turiani Hourneaux de Moura, MD, MSc, PhD,[1] Marco Aurelio Santo, MD, PhD,[3] Eduardo Guimarães Hourneaux de Moura, MD, MSc, PhD[1]

(Gastrointest Endosc 2020;92:97-107.)

RCT comparing APC alone with APC + TORe in 40 patients



Long-term follow-up after transoral outlet reduction following Roux-en-Y gastric bypass: Back to stage 0?

OPEN ACCESS

Endosc Int Open 2023; 11: E538–E545

Authors
Vitor Ottoboni Brunaldi[1,2], Guilherme Henrique Peixoto de Oliveira[1], Anthony Kerbage[2], Pedro Henrique Ribas[1], Felipe Nunes[1], Galileu Faria[1], Diogo de Moura[1], Daniel Riccioppo[1], Marco Santo[1], Eduardo de Moura[1]

29 / 39 patients assessed 3 years after TORe or APC

	All patients N = 29	APC N = 15	APC-FTS N = 14	*P* value (APC vs. APC-FTS)
6-month				
▪ %EWL[1]	26.0 (15.6–42.2)	31.4 (18.7–44.0)	19.5 (9.3–34.0)	0.191
▪ %TWL[1]	10.8 (6.2–14.2)	13.1 (8.4–14.3)	8.4 (3.6–14.2)	0.228
▪ BMI reduction[1]	4.0 (2.4–6.1)	5.2 (3.3–6.1)	3.3 (1.5–6.2)	0.209
12-month				
▪ %EWL[1]	22.9 (9.0–31.2)	24.3 (12.6–32.4)	13.8 (2.0–32.3)	0.256
▪ %TWL[1]	8.2 (4.2–12.5)	8.3 (6.2–13.0)	5.5 (0.9 –10.9)	0.206
▪ BMI reduction[1]	3.1 (1.9–4.8)	3.6 (2.7–4.8)	2.1 (0.4–4.5)	0.206
3-year				
▪ %EWL[1]	–3.4 (–10.1–15.4)	2.5 (–8.7–15.4)	–6.3 (–19.7–13.4)	0.206
▪ %TWL[1]	–4.4 (–4.3–3.9)	0.7 (–2.5–6.7)	–2.3 (–8.4–2.7)	0.176
▪ BMI reduction[1]	–0.6 (–2.0–1.5)	0.2 (–1.2–2.9)	–1.0 (–3.7–0.9)	0.222

Long-term follow-up after transoral outlet reduction following Roux-en-Y gastric bypass: Back to stage 0?

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Endosc Int Open 2023; 11: E538–E545

Authors
Vitor Ottoboni Brunaldi[1,2], Guilherme Henrique Peixoto de Oliveira[1], Anthony Kerbage[2], Pedro Henrique Ribas[1], Felipe Nunes[1], Galileu Faria[1], Diogo de Moura[1], Daniel Riccioppo[1], Marco Santo[1], Eduardo de Moura[1]

29 / 39 patients assessed 3 years after TORe or APC

▶ **Table 3** Diameter of the gastrojejunal anastomosis.

	All patients N = 29	APC N = 15	FTS-APC N = 14	*P* value
Endoscopic anastomosis diameter at baseline	20 (18–25)	20 (18–25)	20 (18–26.3)	0.876
Endoscopic anastomosis diameter at 3 years	22 (18–25)	22 (18–25)	24 (19.5–30)	0.242
Delta	2 (–2–5)	0 (–6–4)	2.5 (0–7)	0.136

Conclusion: obesity is a chronic, relapsing disease. As such, most effects of TORe are lost at 3 years, and redilation of the GJA occurs

Surgical options

- Pouch/GJS dilatation
  - Pouch re-sizing +/- new GJS
  - Banding the pouch +/- re-sizing
    - Fixed band
    - Adjustable band
- Pouch anatomy normal
  - "Playing" with the limb lengths
  - Conversion to another procedure

Laparoscopic Pouch Resizing and Redo of Gastro-jejunal Anastomosis for Pouch Dilatation following Gastric Bypass

Markus K. Müller, MD; Stefan Wildi, MD; Thomas Scholz, MD; Pierre-Alain Clavien, MD, PhD; Markus Weber, MD

Obesity Surgery, 15, 1089-1095

5 patients

Mean 2,3 years after RYGB

Mean FU 12 months

Mean decrease in BMI: 4,6 units

Mean BMI at FU: 28

Feasible. No LT result

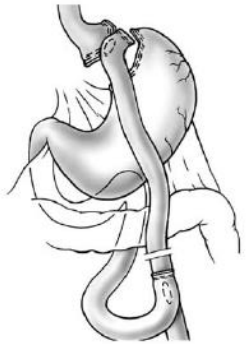

Figure 1. Standard Roux-en-Y gastric bypass (RYGBP) with 15 ml pouch size and alimentary limb length of 150 cm.

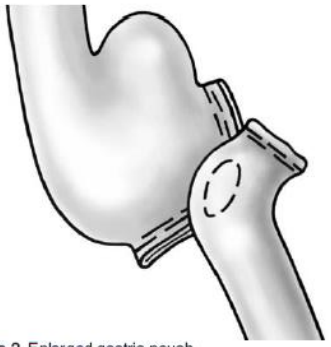

Figure 2. Enlarged gastric pouch.

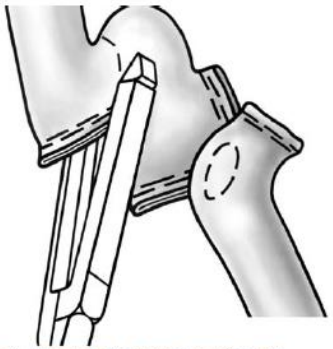

Figure 3. Resection of enlarged gastric pouch.

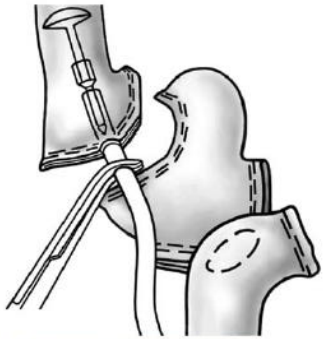

Figure 4. Positioning of the anvil in the pouch.

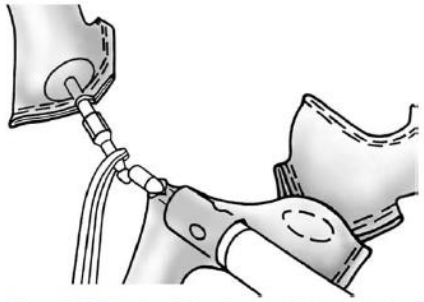

Figure 5. Mobilization of the alimentary limb; positioning of the circular stapler into the small bowel and connection with the anvil.

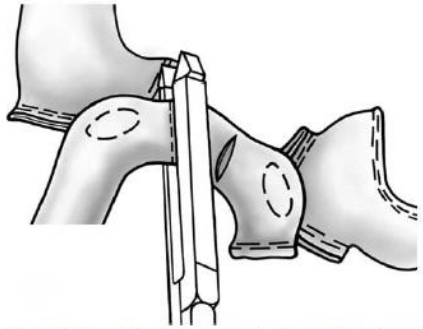

Figure 6. Resection of the old pouch with anastomosis and closing of the jejunal limb.

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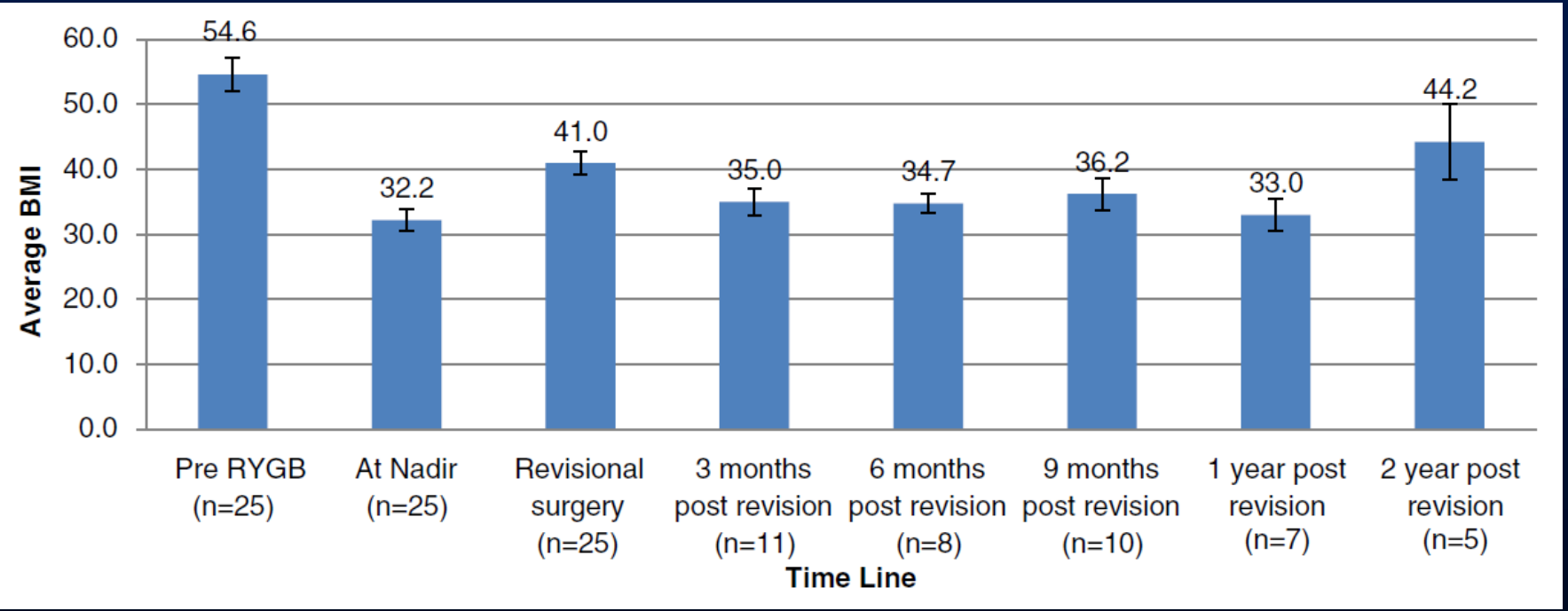
Midterm Outcomes of Revisional Surgery for Gastric Pouch and Gastrojejunal Anastomotic Enlargement in Patients with Weight Regain After Gastric Bypass for Morbid Obesity

Abdulrahman Hamdi · Christopher Julien · Phillip Brown · Ian Woods · Anas Hamdi · Gezzer Ortega · Terrence Fullum · Daniel Tran

OBES SURG (2014) 24:1386–1390
DOI 10.1007/s11695-014-1216-z

25 patients submitted to pouch re-sizing

0 % mortality, 8 % morbidity



Laparoscopic "Gastrojejunal Sleeve Reduction" as a Revision Procedure for Weight Loss Failure After Roux-En-Y Gastric Bypass

Manish Parikh · Laura Heacock · Michel Gagner

OBES SURG (2011) 21:650–654
DOI 10.1007/s11695-010-0274-0

14 patients submitted to gastro-jejunal sleeve reduction

Conclusion: For RYGB patients who regained weight, laparoscopic gastrojejunal sleeve reduction does not seem to offer a major therapeutic benefit.

Gastric pouch resizing for Roux-en-Y gastric bypass failure in patients with a dilated pouch

Antonio Iannelli, M.D., Ph.D.*, Anne-Sophie Schneck, M.D., Xavier Hébuterne, M.D., Ph.D., Jean Gugenheim, M.D., Ph.D.

Centre Hospitalier Universitaire de Nice, Pôle digestif, Nice, France and Faculté de Médecine, Université de Nice-Sophia-Antipolis, Nice, France

Received August 4, 2011; accepted May 3, 2012

Surgery for Obesity and Related Diseases 9 (2013) 260–268

20 patients submitted to pouch re-sizing

0% mortality 30 % morbidity

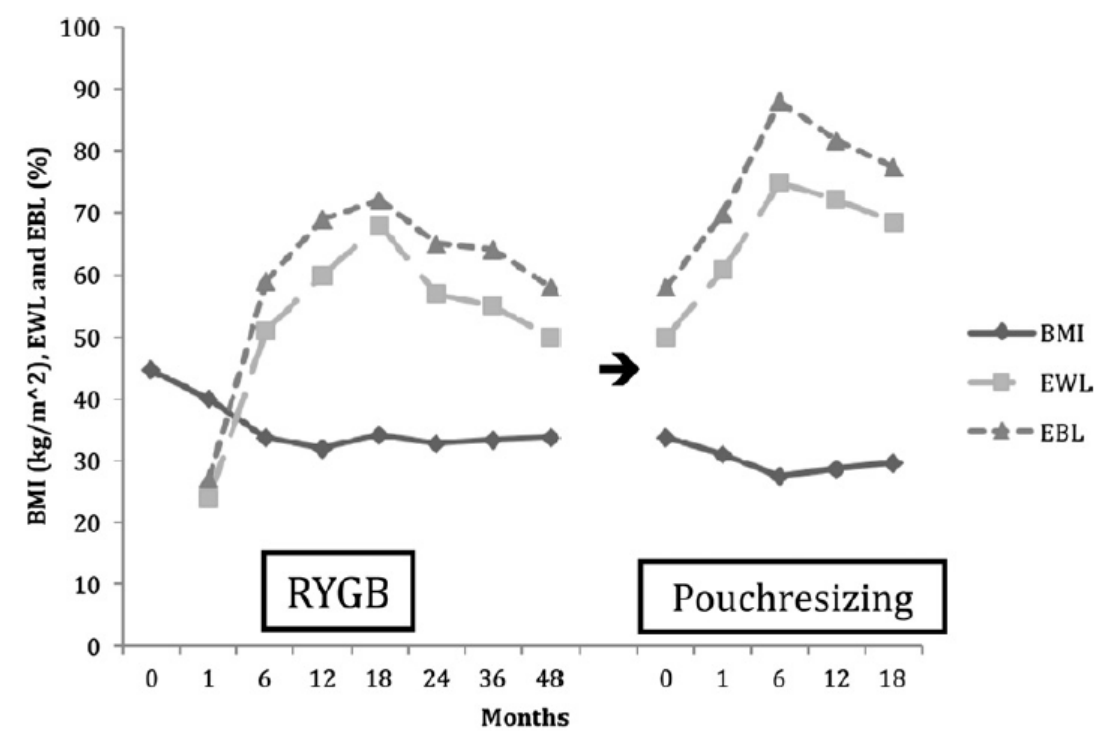


Table 4
Weight loss results as function of mechanism underlying dilation

Variable	Primary dilated pouch		Secondary dilated pouch	
	BMI (kg/m^2)	%EWL	BMI (kg/m^2)	%EWL
Before RYGB	46	—	45.5*	—
At pouch resizing	35.8	42	35.5*	43.8*
At follow-up	28.2	75.3	32.4†	57.5‡

RYGB = Roux-en-Y gastric bypass; BMI = body mass index; %EWL = percentage of excess weight loss.

* Nonsignificant.

† $P = .052$.

‡ $P = .0099$.

Long-Term Results at 10 Years of Pouch Resizing for Roux-en-Y Gastric Bypass Failure

Céline Drai [1,2], Andrea Chierici [1], Luigi Schiavo [3], Tagleb S. Mazahreh [4], Anne-Sophie Schneck [5] and Antonio Iannelli [1,2,6,*]

Nutrients **2022**, *14*, 4035. https://doi.org/10.3390/nu14194035

Primary composite outcome: failure rate at 10 years defined as EWL < 50 % or presence of T2D, DL, HT, OSAS, disabling OA

47 % failures @ 10 years

53 % success

Midterm Outcomes of Gastric Pouch Resizing for Weight Regain After Roux-en-Y Gastric Bypass

Imed Ben Amor[1] · Niccolo Petrucciani[2] · Radwan Kassir[3] · Eugene Malyshev[1] · Clementine Mazoyer[1] · Carine Korkmaz[1] · Tarek Debs[1] · Jean Gugenheim[1]

Obesity Surgery (2020) 30:2723–2728

48 patients, Mean initial BMI = 42,5, mean BMI before re-sizing = 36,6

0 % mortality, 8,3 % morbidity. FU 62,5 % and 45,8 % @ 3 and 5 years

Table 4 Results on weight loss after gastric pouch resizing

Weight at 1 year (41 patients) (kg)	82.5 ± 16.5
BMI at 1 year (kg/m^2)	30.0 ± 7.3
Weight at 3 years (30 patients) (kg)	80.9 ± 16.7
BMI at 3 years (kg/m^2)	30.0 ± 6.0
Weight at 5 years (22 patients) (kg)	82.2 ± 15.2
BMI at 5 years (kg/m^2)	30.9 ± 5.7

Table 3 Evolution of comorbidities

	Before pouch resizing	After pouch resizing (at mean FU of 5.4 years)
OSAS	10	0
Diabetes	11	2
Hypertension	15	5
Arthrosis	9	3
GERD	7	7

Conclusion: In good selected patients with a gastric pouch > 200 ml, pouch re-sizing may be a good option

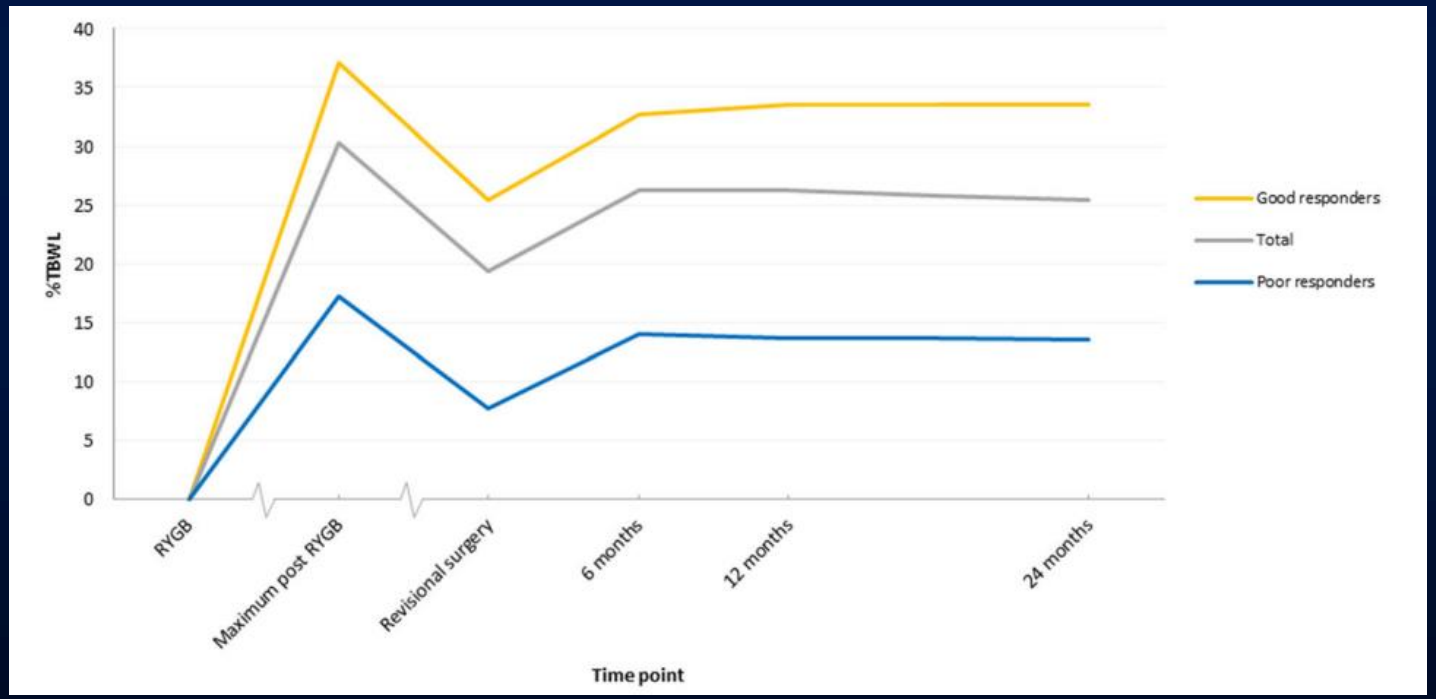
Banding the pouch

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 Boerboom[1] · Edo Aarts[1] · Volker Lange[2] · Andreas Plamper[3] · Karl Rheinwalt[3] · Katja Linke[4] · Ralph Peterli[4] · Frits Berends[1] · Eric Hazebroek[1]

Obesity Surgery (2020) 30:797–803

79 patients had placement of an unadjustable ring around the pouch for insufficient weight loss or weight regain



- Better results in patients with initially good response
- 34 % complications during the initial 24 months
- 18 (23%) rings removed, mostly due to dysphagia
- The ring should not be too tight

Laparoscopic Adjustable Gastric Banding with the Adhesix® Bioring® for Weight Regain or Insufficient Weight Loss After a Roux-en-Y Gastric Bypass: Midterm Data from the *Pronto* Registry

Karen Jacobs[1] · Wouter Vleeschouwers[2] · Isabelle Debergh[3] · Dorien Haesen[4] · Bruno Dillemans[1]

Obesity Surgery (2021) 31:4295–4304

35 patients with insufficient weight loss or regain (EWL < 50 %) after RYGB submitted to placement of an adjustable Bioring Band

Table 3 Weight change from primary RYGB to 24 months after revisional LAGB

	n	Weight, kg	BMI, kg/m^2	%TWL from weight at LAGB	%TWL from weight at RYGB
At primary RYGB	35	124.5 ± 20.8 (93.0–176.0)	43.6 ± 5.4 (33.3–59.2)	-	-
At revisional LAGB	35	110.7 ± 16.9 (82.0–148.2)	38.8 ± 4.3 (29.4–48.1)	-	10.4 ± 10.4 (−14.3–27.1)
At follow-up					
6 months	25	99.1 ± 19.0 (73.6–132.0)	34.5 ± 4.4 (26.4–44.1)	11.4 ± 6.9 (−2.3–30.7)	20.6 ± 10.8 (−9.2–37.5)
12 months	29	93.0 ± 16.7 (71.0–126.0)	32.8 ± 4.1 (25.8–42.7)	15.5 ± 7.5 (1.6–33.3)	23.7 ± 11.7 (1.6–45.1)
24 months	28	92.1 ± 16.3 (63.0–128.0)	32.0 ± 4.5 (23.7–41.8)	17.4 ± 11.3 (0.0–41.3)	26.0 ± 13.1 (0.8–51.7)

- 21 % short-term complications
- Longer term follow-up data necessary

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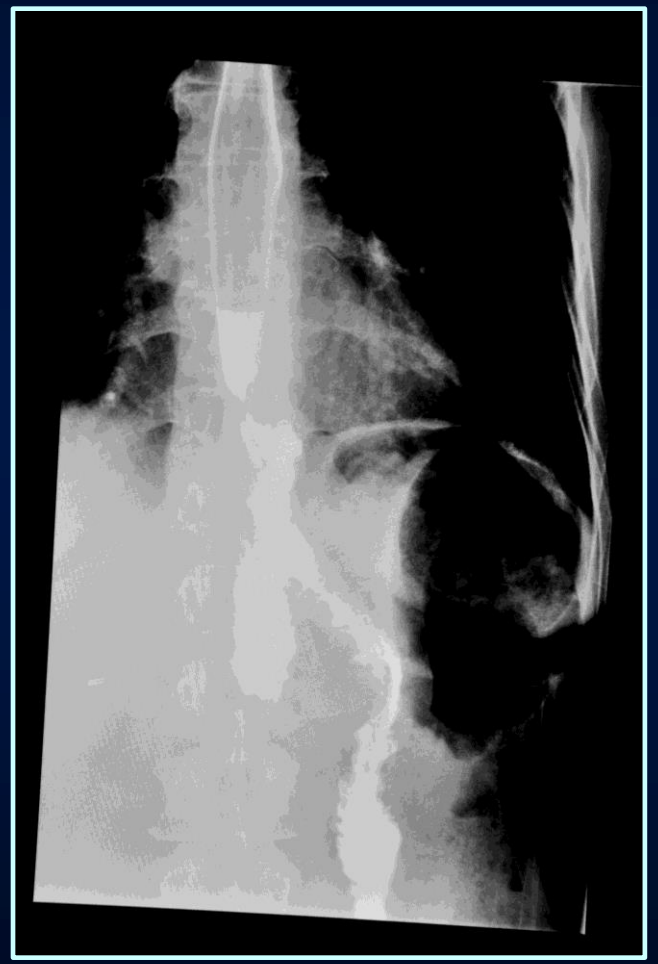
Candy cane

Can be resected if associated with symptoms (pain during meals, halitosis) or RWG



Gastro-gastric fistula

Treatment

Closure of the fistula

± re-sizing of the pouch

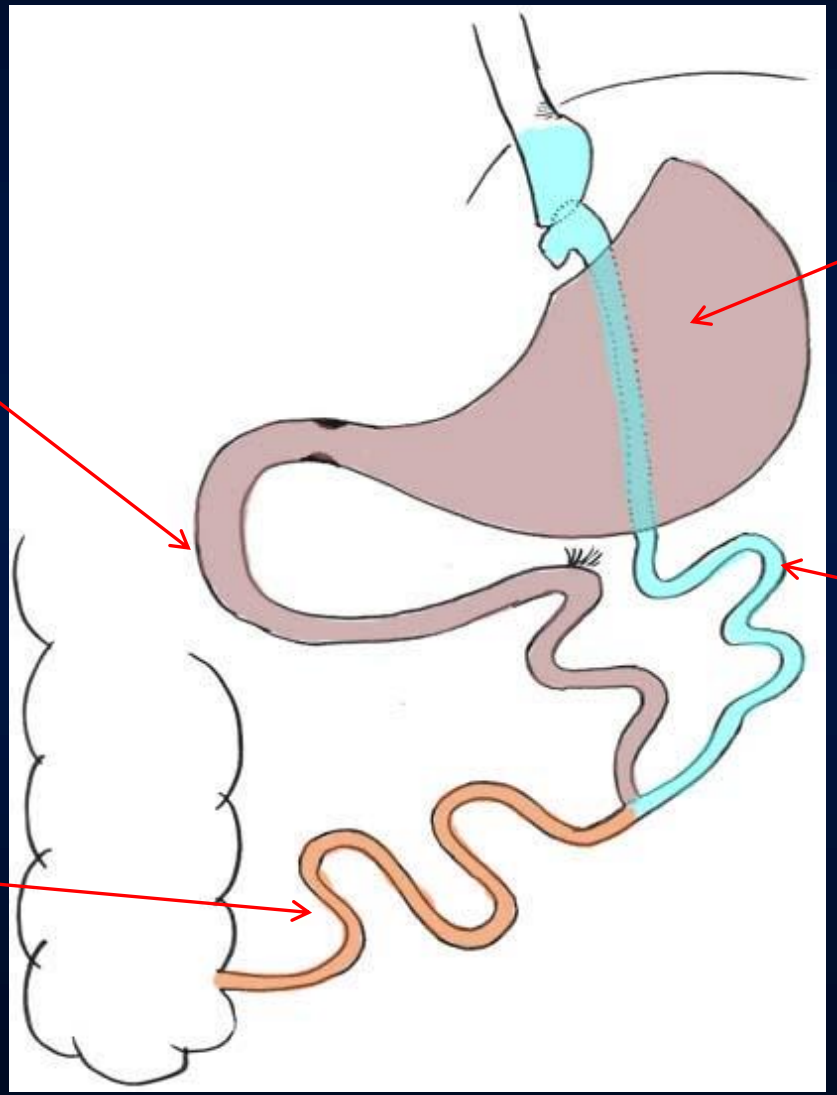
± new GJS

± resection of the fundus or remnant

Proximal Roux-en-Y gastric bypass

Bilio-pancreatic limb

Short, ~ 50 cm



Excluded stomach

Alimentary limb (Roux limb)

100 – 150 cm

Long, unmeasured

Common limb

What about changing the lengths to improve weight loss ?

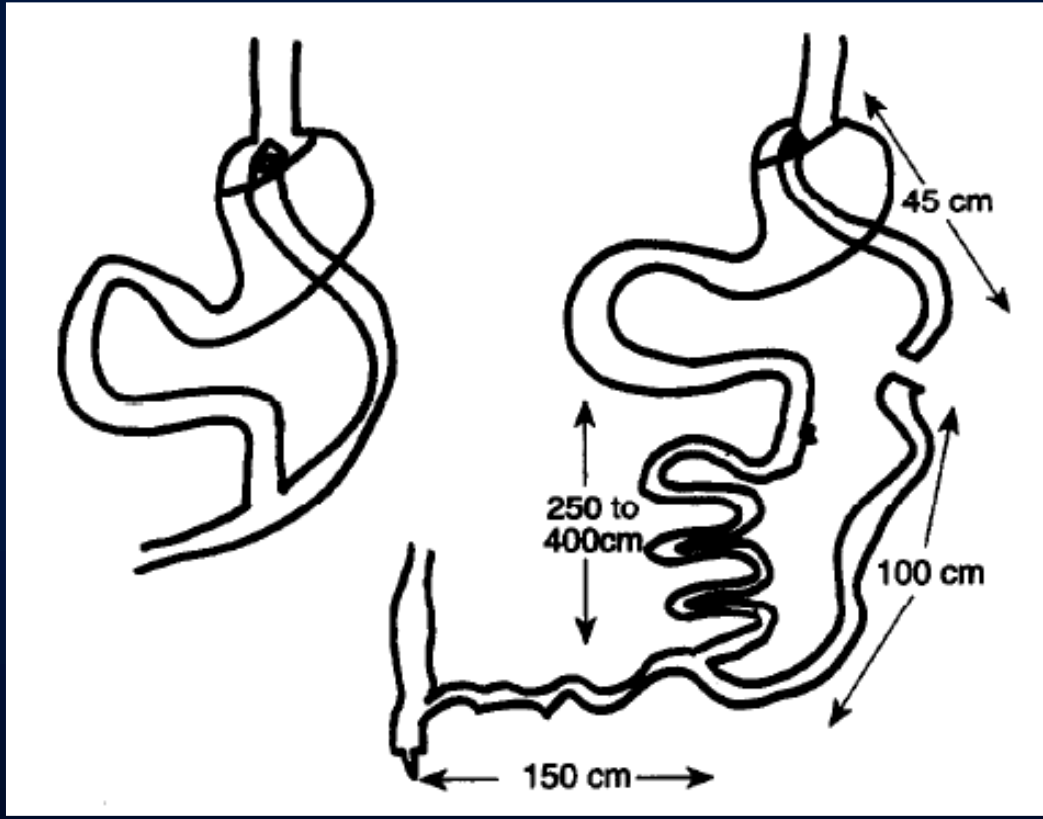
- Shortening of the common limb
- Lengthening of the BPL
- Combination

Conversion of Proximal to Distal Gastric Bypass for Failed Gastric Bypass for Superobesity

Harvey J. Sugerman, M.D., John M. Kellum, M.D., Eric J. DeMaria, M.D.

J Gastrointest Surg 1997; 1: 517

	No.	Weight (pounds)	BMI (kg/m²)	%EWL
Before S-GBP	27	367 ± 13	57 ± 2	—
Before D-GBP	27	296 ± 10*	46 ± 2*	30 ± 4
1 year after	25/27	232 ± 9†	37 ± 2†	61 ± 4†
3 yr after	13/16	216 ± 15†	35 ± 2†	67 ± 5†
5 yr after	11/12	211 ± 14†	33 ± 2†	69 ± 5†



- Weight loss and comorbidity resolution satisfactory
- All patients with CL = 50 cm and some with CL = 150 cm developed severe malnutrition
- "The operation is potentially dangerous, mandates long-term follow-up, and is entirely dependent on the willingness and ability of the patient to adhere to follow-up monitoring and treatment".

Revision of Roux-en-Y gastric bypass to distal bypass for failed weight loss

M. Logan Rawlins, M.D.[a,b,*], Donovan Teel, II, M.D.[b,c], Kim Hedgcorth, C.M.A.[c], John P. Maguire, M.D.[b,c]

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Surgery for Obesity and Related Diseases 7 (2011) 45–49

- Revision from Standard RYGB (AL=150 cm) to D-RYGB (CL = 100 cm) for TALL = 250 cm
- 29 patients
- FU 100 %, but only 5 patients @ 5 years
- 9 patients developed hypoalbuminemia
- 6 patients required TPN
- 1 required reoperation

Comparison of weight loss before and after revision

Variable	Before RYGB	Before revision	After D-RYGB		
			1 y	3 y	5 y
Total patients (n)	29	29	29	13	5
Follow-up (n)	—	—	29/29	13/13	5/5
Average %EWL	—	26.6	60.9*	69.8*	68.8*
Average BMI (kg/m^2)	57.9	48.1	35.3	31.9	31.5

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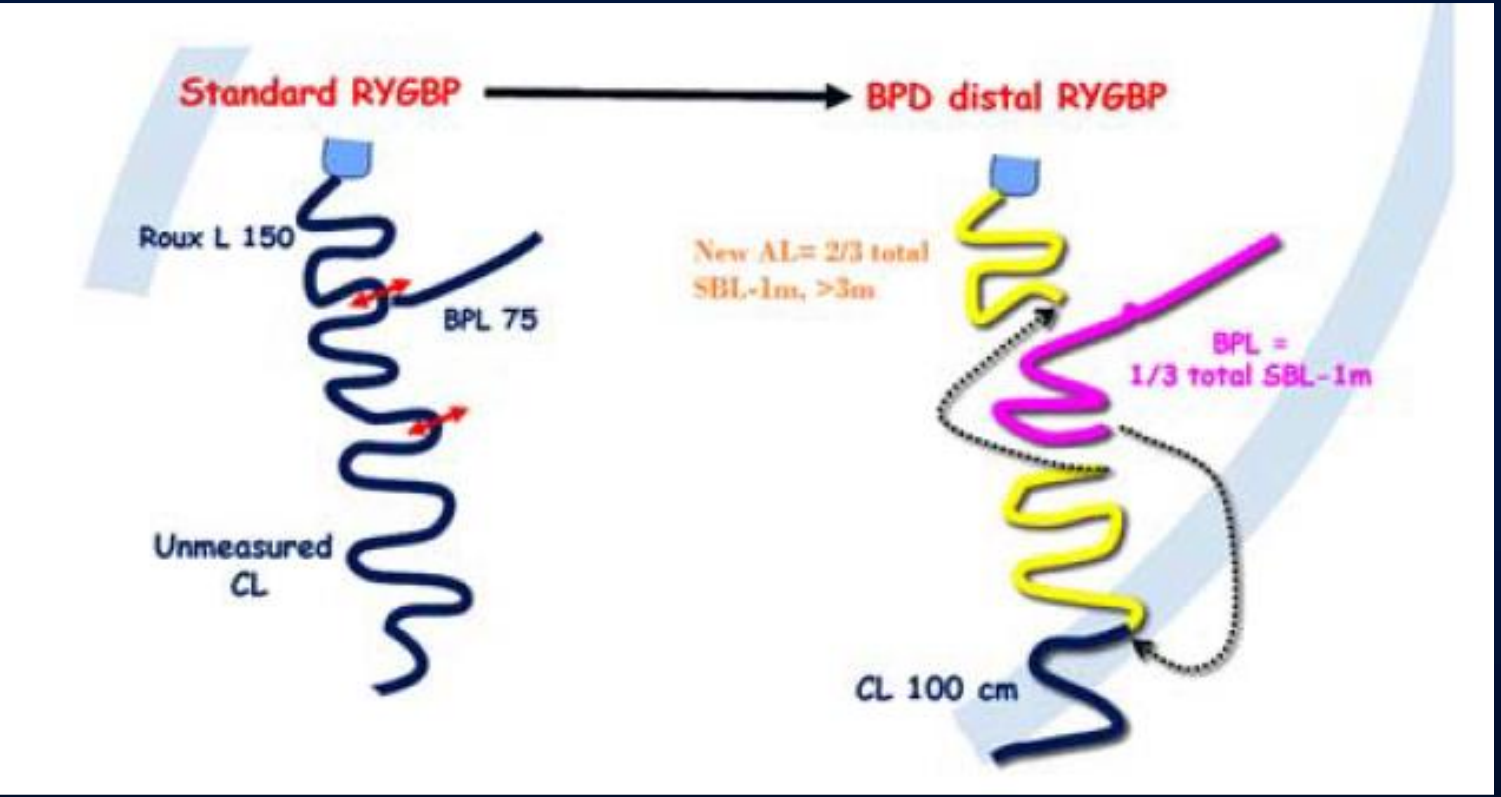
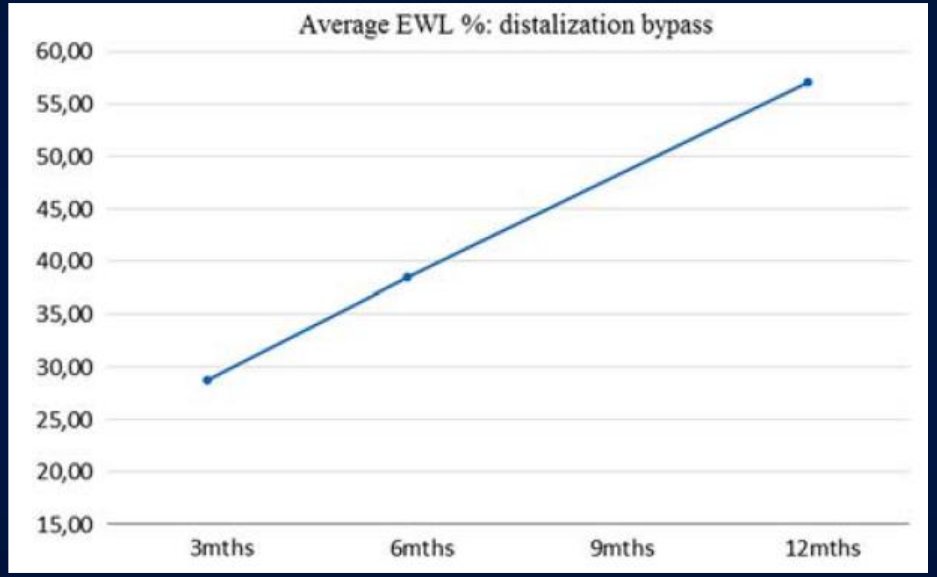
Novel Technique of Distal Roux-en-Y Gastric Bypass for Insufficient Weight Loss After Primary Procedure: Personal Experience and Primary Results at 12 Months

Theodoros Thomopoulos, MD,† Vincent Tomasi, MD,**
Evangelos Koliakos, MD, Maximilien Thoma, MD,* and Benoit Navez, MD**

(*Surg Laparosc Endosc Percutan Tech* 2018;28:e83–e87)





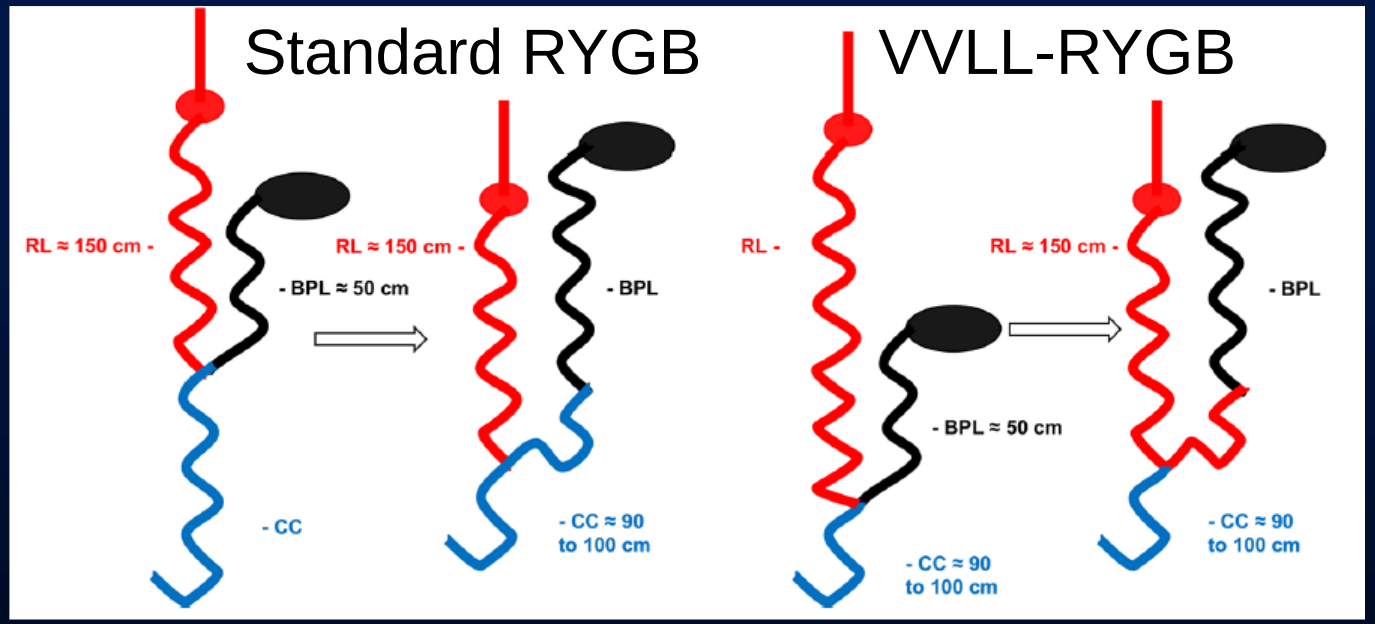
- Good early results
- Nutritional issues later

Revisional Surgery for Insufficient Loss or Regain of Weight After Roux-en-Y Gastric Bypass: Biliopancreatic Limb Length Matters

Marko Kraljević [1] · Thomas Köstler [1] · Julian Süsstrunk [1] · Ioannis I. Lazaridis [2] · Amy Taheri [3] · Urs Zingg [1] · Tarik Delko [2]

Obesity Surgery (2020) 30:804–811

- 28 patients converted from RYGB or VVLL-RYGB to D-RYGB with CL = 100 cm and AL = 150 cm (TALL = 250 cm)



- Good weight loss (10 BMI units)
- Good resolution of comorbidities
- Side effects (steatorrhea, diarrhea) common
- Numerous deficiencies
- 6 patients required reoperation for proteocaloric malnutrition
- Patient selection essential
- TALL = 300 cm better

Conversion of standard Roux-en-Y gastric bypass to distal bypass for weight loss failure and metabolic syndrome: 3-year follow-up and evolution of technique to reduce nutritional complications

Saber Ghiassi, M.D., M.P.H.[a], Kelvin Higa, M.D.[b,*], Steven Chang, M.D.[b], Pearl Ma, M.D.[b], Aaron Lloyd, M.P.H.[b], Keith Boone, M.D.[b], Eric J. DeMaria, M.D.[c]

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Received April 17, 2017; accepted January 8, 2018
Surgery for Obesity and Related Diseases 14 (2018) 554–561

- 96 patients converted from proximal to D-RYGB (2 types)
- Division of AL at JJ
- Re-anastomosis of AL 150-200 cm proximal to ileocaecal valve (11)
  - CL = 150-200 cm, AL = 100-150 cm , TALL = 300-350 cm
  - Severe nutritional deficiencies with proteocaloric malnutrition
  - All 11 patients revised to longer CL

- Re-anastomosis of AL 300 cm from ileocaecal valve (85)
  - CL = 300 cm, AL = 100-150 cm, TALL = 400-450 cm
  - No severe nutritional issue

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Follow-up and weight loss before and after distalization using total alimentary limb length (TALL) of 400 to 450 cm

	BMI kg/m^2	Range	%EWL	%TWL	Δ BMI	FU (%)
Index RYGB	48.4 ± 9.0	35.8–79.7	–	–	–	–
At distalization	40.6 ± 7.3	24.5–64.9	33.6 ± 24.6	–	–	–
30 d postdistalization	38.1 ± 6.8	24.7–63.1	18.2 ± 8.9	6.1 ± 2.3	2.5 ± 1.0	96/96 (100)
6 mo postdistalization	34.3 ± 6.2	24.4–49.8	44.1 ± 32.8	13.8 ± 7.1	5.7 ± 3.3	73/81 (90.1)
1 yr postdistalization	34.4 ± 6.6	24.5–47.3	41.9 ± 28.3	15.3 ± 9.6	6.4 ± 4.5	42/60 (70.0)
2 yr postdistalization	33.1 ± 7.0	25.8–47.9	53.7 ± 26.3	19.4 ± 9.4	8.0 ± 4.2	18/33 (54.5)
3 yr postdistalization	32.2 ± 7.2	25.5–48.7	65.7 ± 22.0	24.2 ± 6.9	10.2 ± 3.2	10/20 (50)

Resolution of co-morbid conditions after distalization using total alimentary limb length (TALL) of 400 to 450 cm

	Predistalization rate	6 mo resolution	1 yr resolution	2 yr resolution	3 yr resolution
Sleep apnea	11/96 (11.46%)	4/7 (57.14%)	2/4 (50.00%)	1/1 (100.00%)	1/1 (100.00%)
GERD	22/96 (22.92%)	10/15 (66.67%)	8/12 (66.67%)	2/5 (40.00%)	2/5 (40.00%)
Hyperlipidemia	17/96 (17.71%)	4/12 (33.33%)	4/10 (40.00%)	1/3 (33.33%)	1/3 (33.33%)
Hypertension	55/96 (57.29%)	6/36 (16.67%)	6/21 (28.57%)	1/9 (11.11%)	0/8 (.00%)
Diabetes	28/96 (29.17%)	11/21 (52.38%)	6/9 (66.67%)	4/5 (80.00%)	3/3 (100.00%)

Conversion of standard Roux-en-Y gastric bypass to distal bypass for weight loss failure and metabolic syndrome: 3-year follow-up and evolution of technique to reduce nutritional complications

Saber Ghiassi, M.D., M.P.H.[a], Kelvin Higa, M.D.[b,*], Steven Chang, M.D.[b], Pearl Ma, M.D.[b], Aaron Lloyd, M.P.H.[b], Keith Boone, M.D.[b], Eric J. DeMaria, M.D.[c]

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Proportion of patients with nutrition and vitamin levels below and above (PTH) normal limits after distalization using total alimentary limb length (TALL) of 400 to 450 cm

	Low value	Predistalization	6 mo	1 yr	2 yr	3 yr
		% Low (n)	% Low (n)	% Low (n)	% Low (n)	% Low (n)
Albumin, gm/dL	<3.2	2.1 (94)	16.7 (24)	14.3 (28)	9.5 (21)	21.1 (19)
Hemoglobin, g/dL	<11	5.2 (96)	4.4 (23)	17.2 (29)	18.2 (22)	15.8 (19)
Protein, gm/dL	<5	.0 (91)	.0 (24)	.0 (27)	.0 (21)	.0 (19)
Iron, ug/dL	<50	30.8 (13)	.0 (10)	21.7 (23)	27.8 (18)	27.3 (11)
Corrected Ca, mg/dL	<8.5	4.3 (94)	.0 (24)	7.4 (27)	14.3 (21)	21.1 (19)
B1, nM	<78	23.1 (13)	.0 (9)	5.6 (18)	11.8 (17)	16.7 (12)
B12, pg/mL	<200	7.7 (13)	9.1 (11)	5.0 (20)	.0 (19)	9.1 (11)
Vit-A, mcg/dL	<38	N/A	66.7 (3)	100.0 (5)	100.0 (3)	100.0 (1)
Vit-D, ng/mL	<30	40.0% (10)	55.6 (9)	66.7 (21)	60.0 (20)	76.9 (13)
	High value	% High (n)	% High (n)	% High (n)	% High (n)	% High (n)
PTH, pg/mL	>65	21.4 (14)	55.6 (9)	40.0 (20)	57.9 (21)	63.6 (11)

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Conversion of standard Roux-en-Y gastric bypass to distal bypass for weight loss failure and metabolic syndrome: 3-year follow-up and evolution of technique to reduce nutritional complications

Saber Ghiassi, M.D., M.P.H.[a], Kelvin Higa, M.D.[b,*], Steven Chang, M.D.[b], Pearl Ma, M.D.[b], Aaron Lloyd, M.P.H.[b], Keith Boone, M.D.[b], Eric J. DeMaria, M.D.[c]

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Conclusions:

- Creation of a TALL of 400 to 450 cm seems to be reasonable and offer good weight loss, improvement in co-morbidities,and pronounced metabolic effects without causing significant malnutrition.
- Nevertheless, patient counseling and close monitoring post revision is critical and we recommend a low threshold to operate to lengthen the distal limb in patients who develop progressive deficiencies or malnutrition.

Conclusion

- Distalisation of the RYGB is possible and usually provides further weight loss and improvement of comorbidities
- The more BPL is excluded, the more absorption surface is excluded
- Too short a common channel creates a high risk of severe nutritional issues, especially proteocaloric malnutrition. The CL should be kept at least 200 cm (300 ?)
- TALL (CL + AL) should be maintained at 400-450 cm
- Results will depend on TBL of individuals
- Patient selection (compliance) and support essential

Conversions of Roux-en-Y gastric bypass to duodenal switch (SADI-S and BPD-DS) for weight regain

Surgical Endoscopy (2020) 34:4422–4428

Rena C. Moon[1] · Layth Alkhairi[1] · Alyssa Jameson Wier[1] · Andre F. Teixeira[1] · Muhammad A. Jawad[1]

10 patients converted to SADI-S and 5 converted to BPD-DS

0 % mortality, 9,6 % major morbidity (leak)

25,4 % TWL after 24 months

Conclusions

Conversion to SADI-S or BPD-DS effective in terms of weight loss and improvement of obesity-related complications

Caution: morbidity, LT nutritional complications

Long-term results of conversion of Roux-en-Y to biliopancreatic diversion with duodenal switch

Maxime Roulet, M.D., Carine Phocas, R.N., Guillaume Becouarn, M.D., Jean-Baptiste Finel, M.D., Philippe Topart, M.D.*

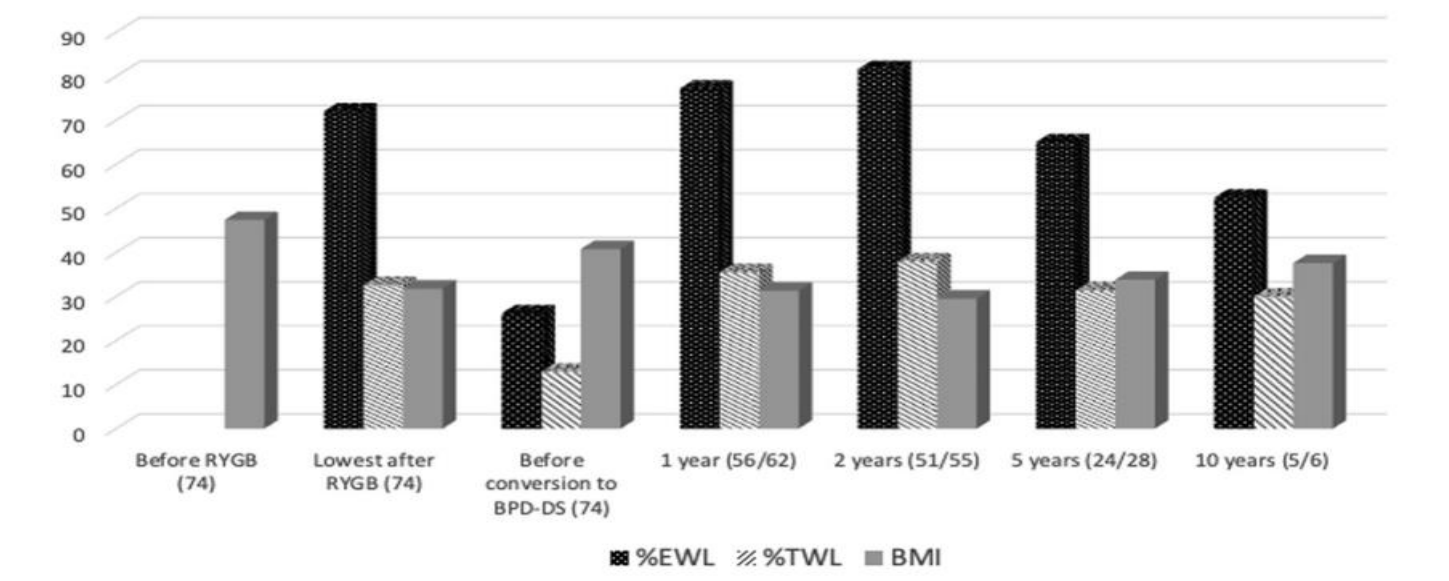
Société de chirurgie viscérale, clinique de l'Anjou, Angers, France

Received 18 September 2023; accepted 25 December 2023

Surgery for Obesity and Related Diseases 20 (2024) 571–576

74 patients converted to BPD-DS a mean of 9 years after RYGB

O % mortality, 25,7 overall morbidity, 14,8 % major complications



LT complications: GERD, diarrhea, nutritional deficiencies

6 late reoperations

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Conclusions

- RWG mandates a complete multidisciplinary evaluation
- Whatever you do, the role of the MDT is essential
- Anatomical defects must be corrected
- Surgical or endoscopic options for selected patients
  - Added restriction (endoscopy or surgery)
  - Pouch re-sizing
  - Banding the pouch
  - Distalisation (CL > 200 cm and TALL > 400 cm)
  - Conversion to BPD-DS or SADI

Thank you for your attention

Original article

Influence of pouch and stoma size on weight loss after gastric bypass

Helen M. Heneghan, M.D., Panot Yimcharoen, M.D., Stacy A. Brethauer, M.D., Matthew Kroh, M.D., Bipan Chand, M.D.*

Bariatric and Metabolic Institute, Cleveland Clinic Foundation, Cleveland, Ohio

Received April 13, 2011; accepted September 13, 2011

Surgery for Obesity and Related Diseases 8 (2012) 408–415

- 380 patients referred for endoscopy for symptoms or recurrent weight gain
- Mean duration of FU since RYGB: 5,9 ± 4 years (range 1-32 years)
- Evaluation of pouch volume (length x width) and stoma size
- Pouch abnormal: length > 6 cm or diameter > 5 cm
- Stoma too large: > 20 mm
- 2 groups based on weight loss: Good: EWL > 50% or BMI < 30
- Poor: EWL < 50 % or BMI > 30

Original article

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Variable	Total (n = 380)	Group A (optimal weight loss; n = 175)	Group B (weight regain; n = 205)	*P* value*
Age (yr)	47.8 ± 10.3	48.5 ± 10.5	47.2 ± 10.1	.228
Gender (%)				.777
Male	13.7	13.1	14.1	
Female	86.3	86.9	85.9	
BMI before primary RYGB (kg/m^2)				<.001
Mean ± SD	52.2 ± 10.5	49.4 ± 9.5	54.3 ± 10.7	
Range	28–105	28–96	36–105	
Interval from RYGB to UE (yr)				<.001
Mean ± SD	5.9 ± 4.0	4.7 ± 4.0	6.9 ± 3.7	
Range	1–32	1–32	1–27	

Gastric pouch and stoma dimensions in patients with successful weight loss versus weight regain

Weight loss outcome after RYGB	Pouch length (cm)	Pouch width (cm)	Pouch volume (cm^2)	Stoma diameter (cm)
Group A (successful weight loss)	5.0 ± 2.4	3.7 ± 1.4	21.8 ± 22.4	2.1 ± 0.8
Group B (weight regain)	5.8 ± 2.6	4.0 (1.7) cm	26.0 ± 22.9	2.5 ± 1.0
P value	.005	.221	.077	<.001

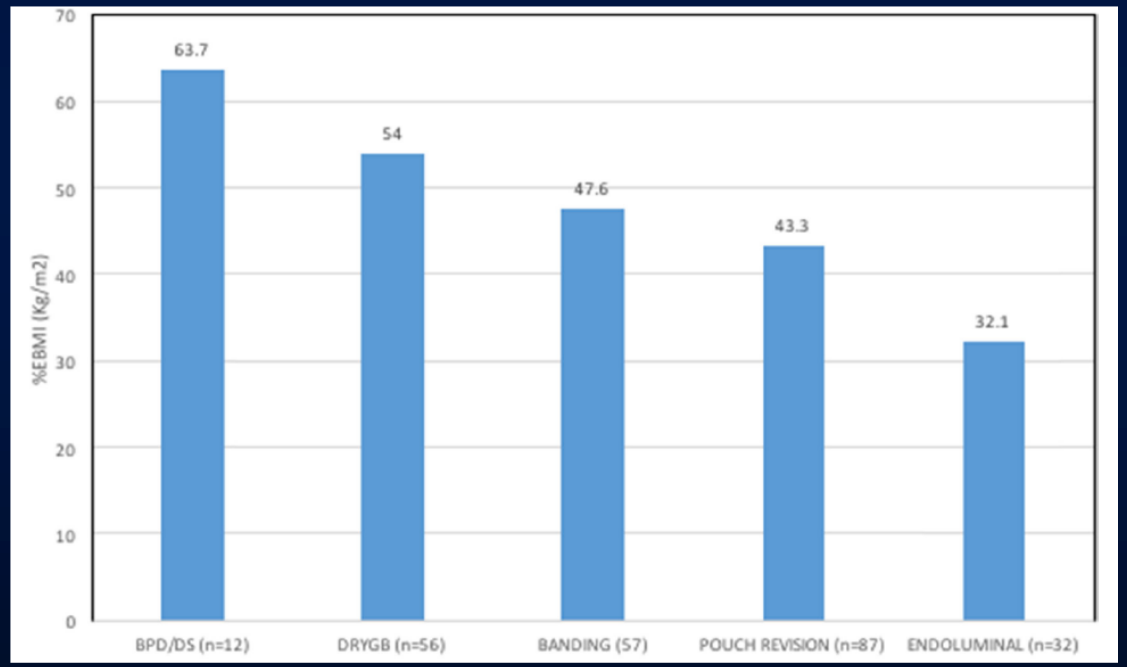
RYGB = Roux-en-Y gastric bypass.

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

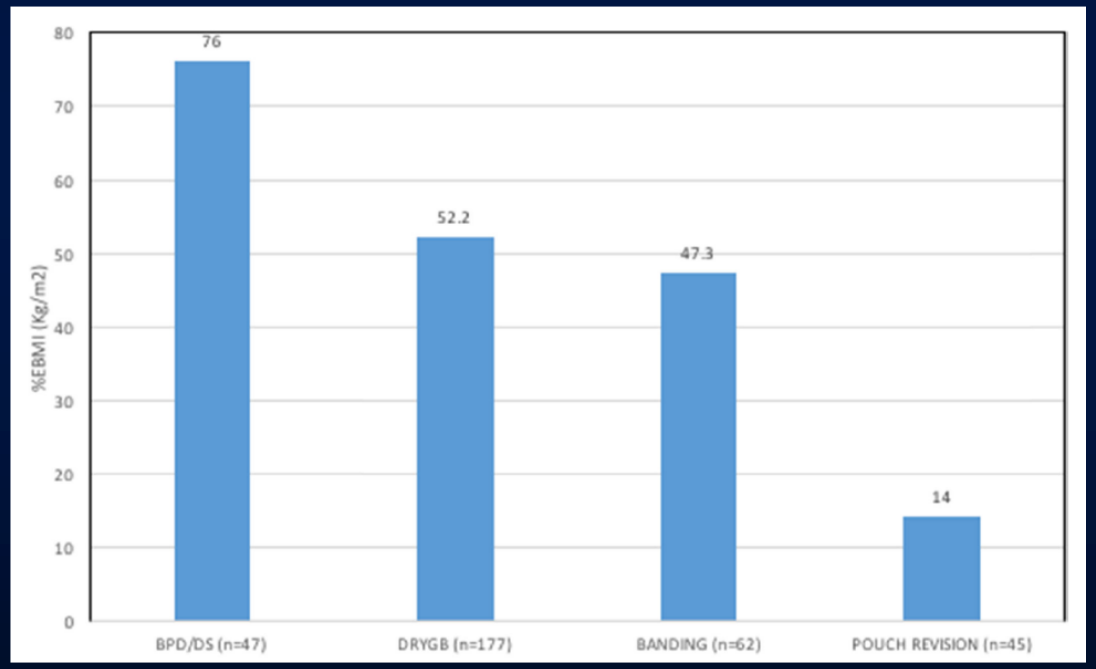
Daniel D. Tran[1] · Ifeanyi D. Nwokeabia[2] · Stephanie Purnell[2] · Syed Nabeel Zafar[1] · Gezzer Ortega[1] · Kakra Hughes[1] · Terrence M. Fullum[1]

OBES SURG (2016) 26:1627–1634
DOI 10.1007/s11695-016-2201-5

24 studies, 866 patients included



1 year



3 years

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