Sleeve Gastrectomy with Jejunal Bypass

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CONFLICT OF INTEREST DISCLOSURE

I have the following potential conflict(s) of interest to report:

- Speaker for Ehicon
- Speaker for Fengh/Fullbrite

Sleeve Gastrectomy with Jejunal Bypass

2002

Dr. Munir Alamo Develops a new bariatric and metabolic surgical technique

1. Reduced gastric storage capacity (SLEEVE)
2. Exclusion of jejunum → exposure of the intestine to partially digested food → production of incretins

2003

Scientific and Ethic's comitee approval (Diego Portales University)
First case

Alamo M et al. Obesity Surgery 2006, 16; 9:1263-6

ELSEVIER

Surgery for Obesity and Related Diseases ▮ (2015) 00–00

SURGERY FOR OBESITY AND RELATED DISEASES

Original article

Detailed characterization of incretin cell distribution along the human small intestine

Tiago P. Guedes, M.D.[a], Sofia Martins, M.Sc.[a], Madalena Costa, B.Sc.[a], Sofia S. Pereira, M.Sc.[a], Tiago Morais, M.Sc.[a], Agostinho Santos, M.D., Ph.D[b], Mário Nora, M.D.[c], Mariana P. Monteiro, M.D., Ph.D.[a,*]

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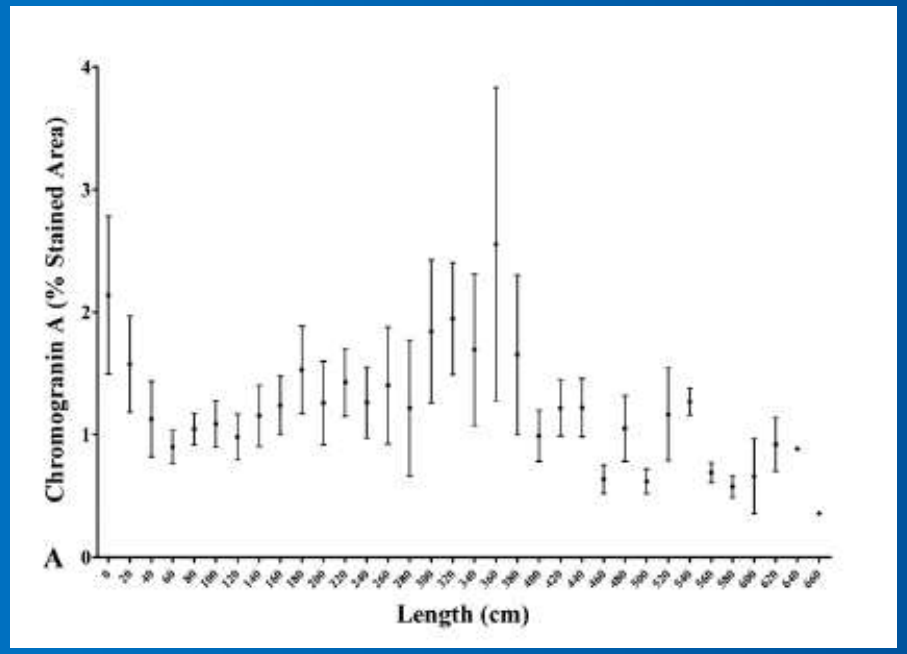
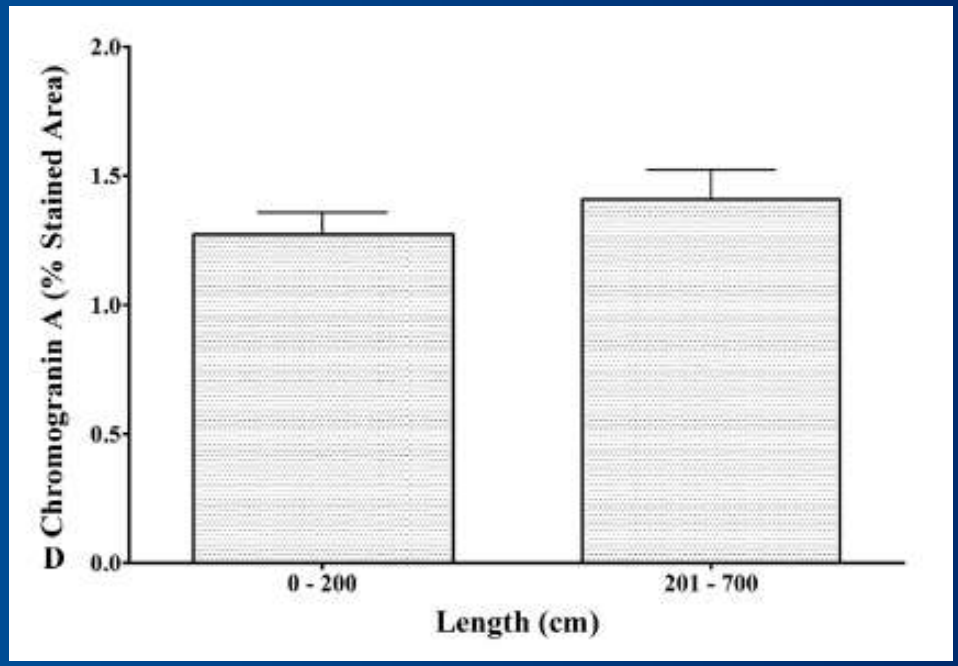




Obesity Surgery, **16**, 353-358

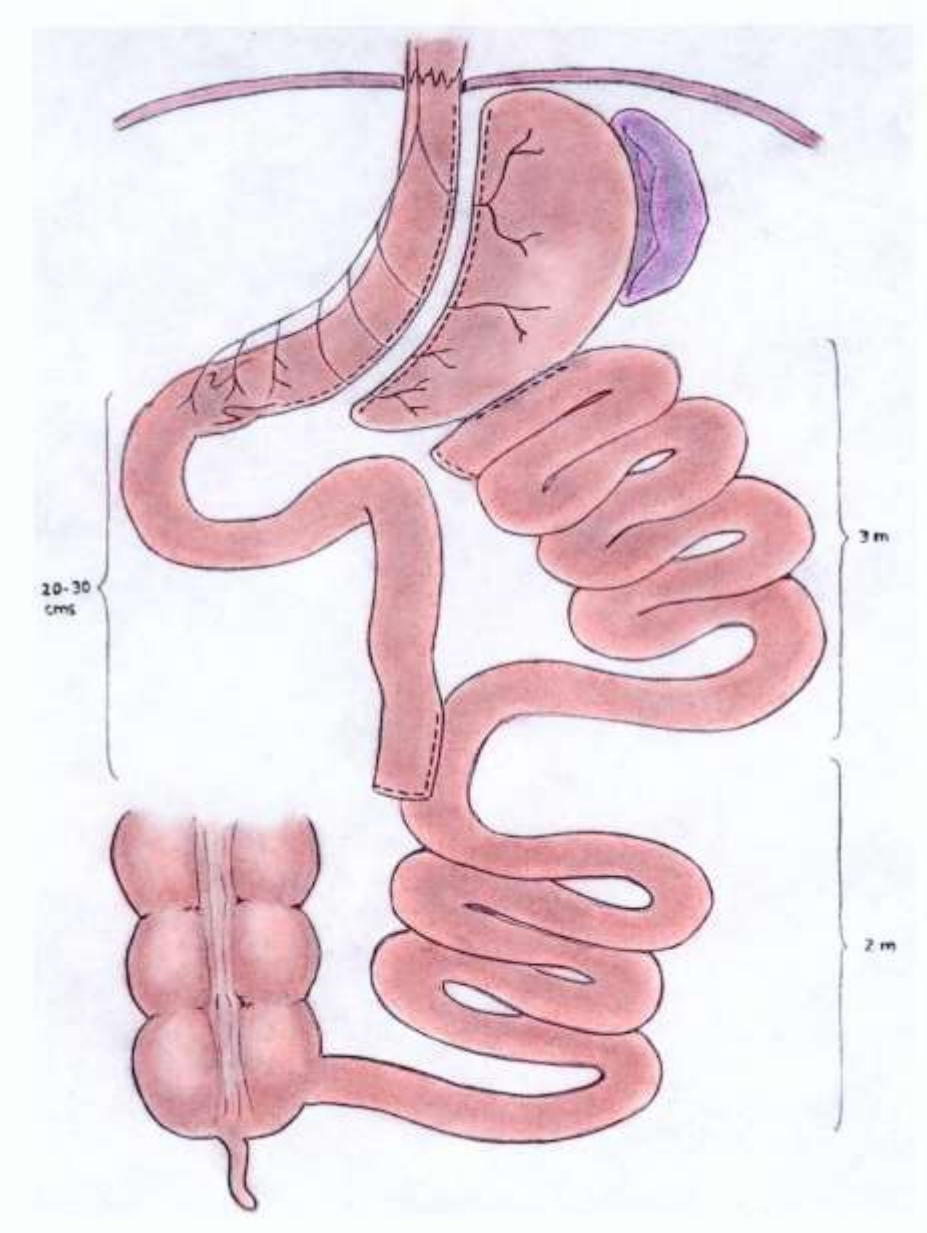
Modern Surgery: Technical Innovation

Vertical Isolated Gastroplasty with Gastro-enteral Bypass: Preliminary Results

Munir Alamo Alamo, MD[1]; Cristián Sepúlveda Torres, MD[2]; Luis Zapata Perez[3]

[1]Professor of Surgery Valparaíso University, Chairman Department of Surgery Dipreca Hospital; [2]Department of Surgery, Diego Portales University School of Medicine, Department of Surgery Valparaíso University; [3]Intern of Surgery, Dipreca Hospital, Santiago, Chile

Alamo M et al. Obes Surg. 2006;16(3):353-358.



30 patients

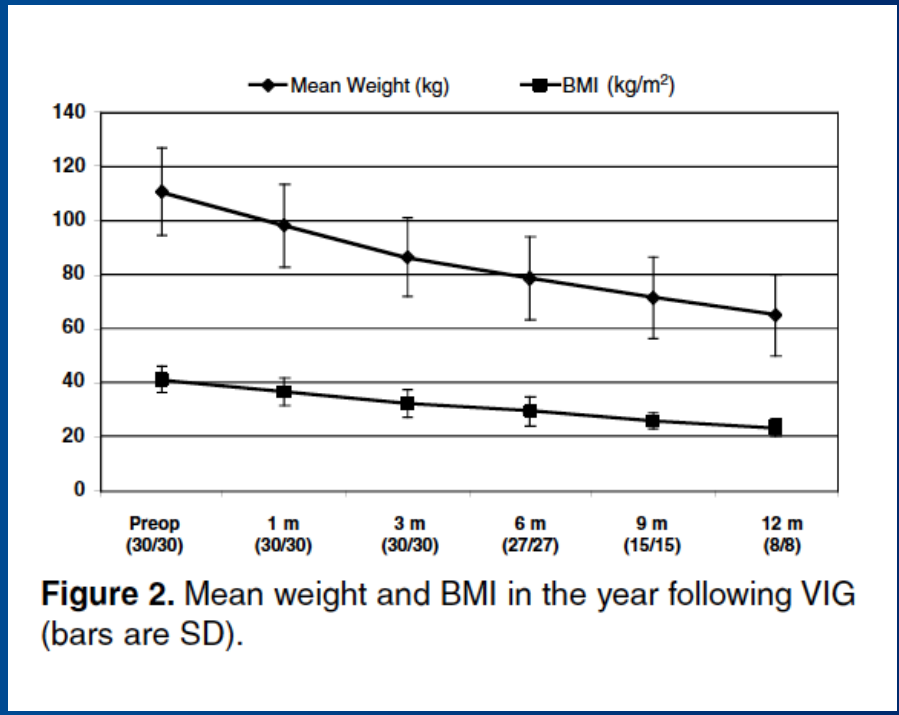
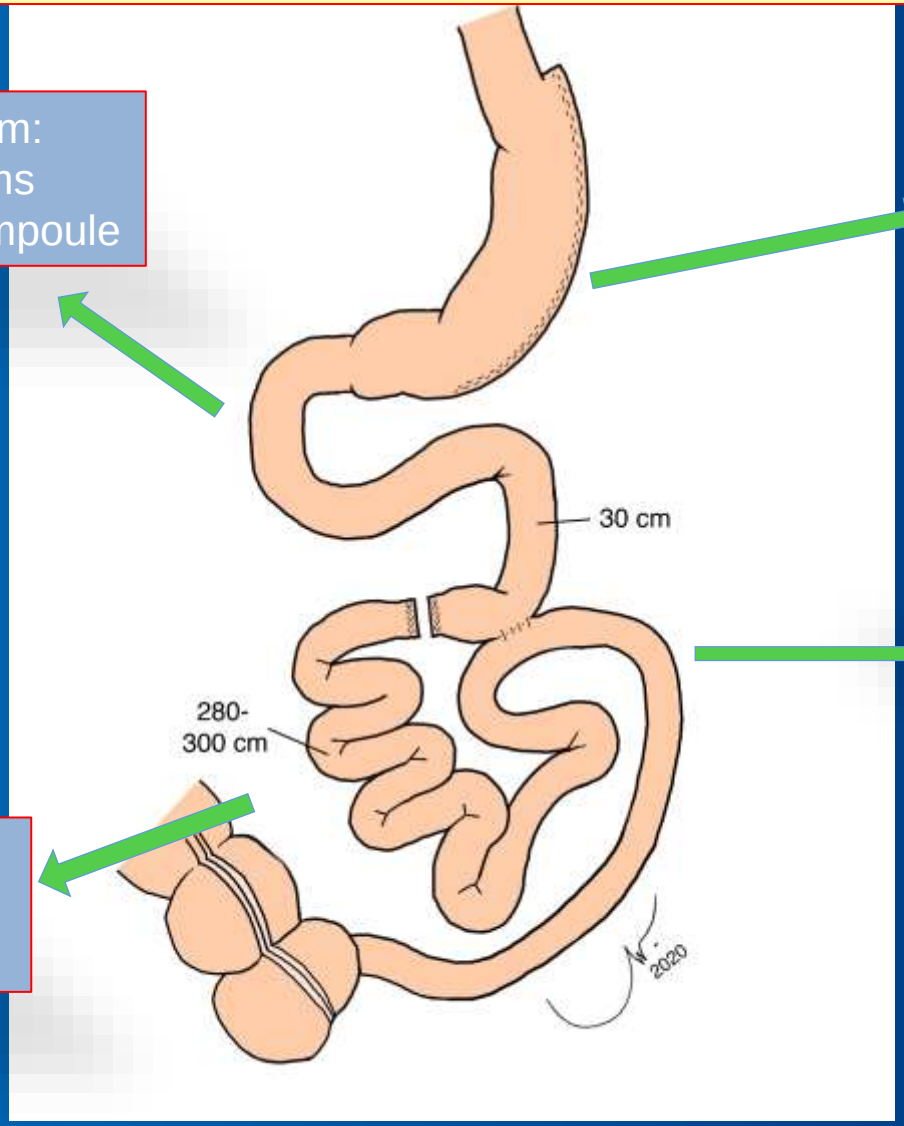


Figure 2. Mean weight and BMI in the year following VIG (bars are SD).

Alamo et al. Obesity Surgery 2006 Vol 16; 3:353-8

Sleeve gastrectomy with jejunal bypass

Transit through duodenum:
Fewer nutritional problems
Endoscopic access to ampoule



Restriction
Ghrelin suppression

- jejunum-ileal anastomosis
  280-300 cm
- 1 bowel anastomosis

- Exclusion of jejunum
- No bacterial overgrowth

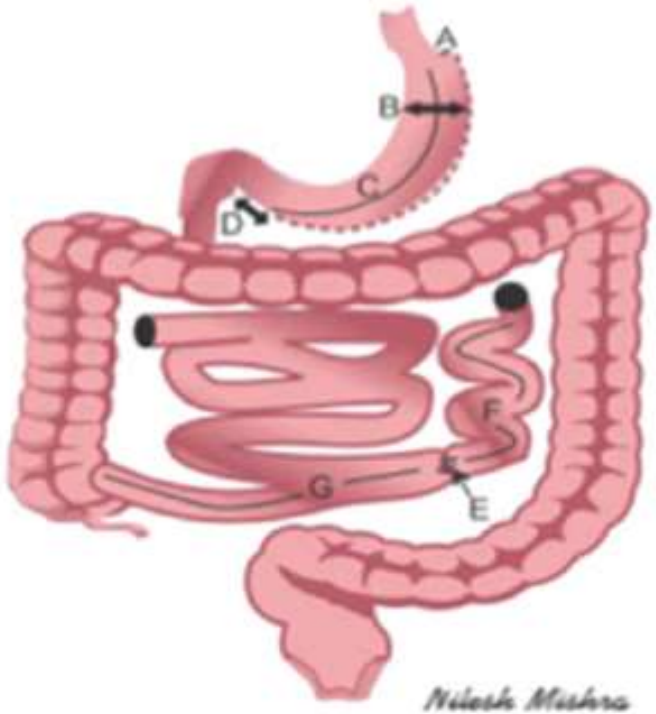
Alamo M et al. Obesity Surgery 2012, 16; 9:1263-6

Obesity Surgery (2019) 29 (Suppl 4):S309–S345
https://doi.org/10.1007/s11695-019-04032-x

CONSENSUS STATEMENT

Standardization of Bariatric Metabolic Procedures: World Consensus Meeting Statement

Mohit Bhandari[1] · M. A. L. Fobi[1] · Jane N. Buchwald[2] ·
and the Bariatric Metabolic Surgery Standardization (BMSS) Working Group:



A = 2-3 cm	Distance of sleeve transection from esophagogastric junction
B = 3-4 cm	Use approx. 50-60 Fr bougie to size sleeve width
C = As is	Length of the sleeve
D = 2-6 cm	Antrectomy distance from pylorus
E = 3 cm	Jejuno-ileal anastomosis
F = 100 cm	Length of jejunal limb
G = 200 cm	Length of ileal limb
V = 150-250 cc	Volume of sleeve (approx.)

Fig. 3 Sleeve gastrectomy with jejunojejunostomy/enteral bypass (SG-JJEB)

Obesity Surgery 2012

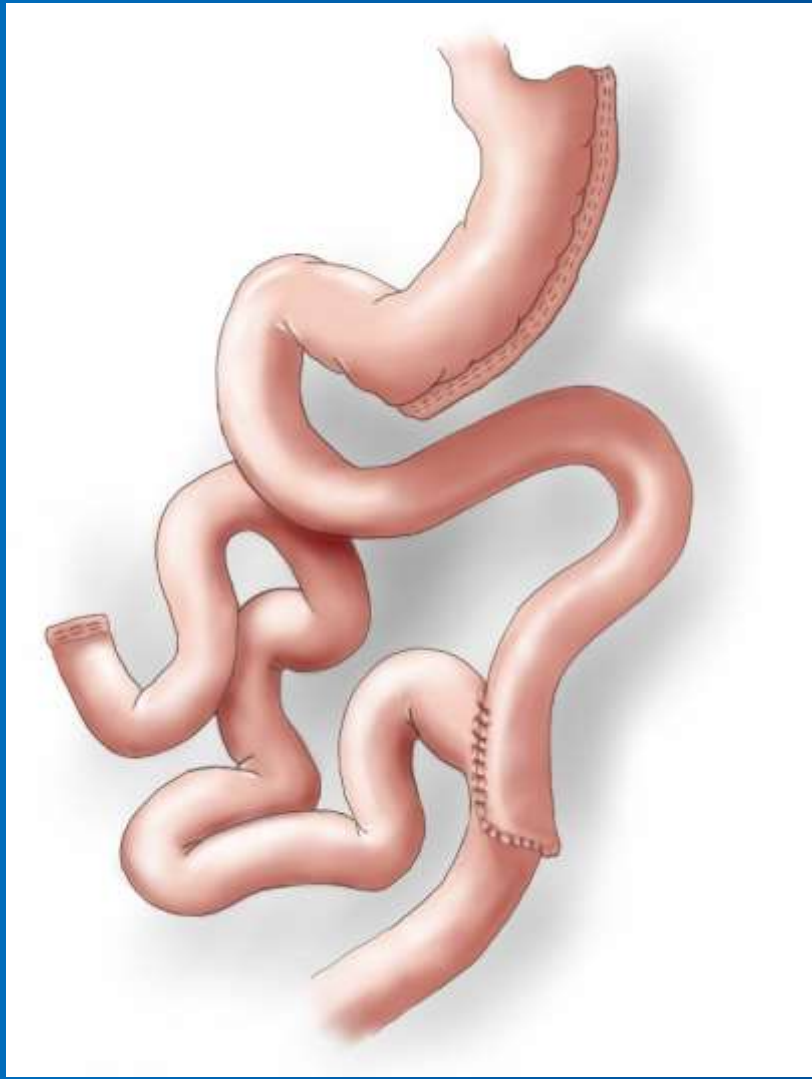
OBES SURG (2012) 22:1097–1103
DOI 10.1007/s11695-012-0652-x

TECHNICAL INNOVATION

Sleeve Gastrectomy with Jejunal Bypass for the Treatment of Type 2 Diabetes Mellitus in Patients with Body Mass Index <35 kg/m^2. A cohort study

Munir Alamo · Matías Sepúlveda · José Gellona · Mauricio Herrera · Cristián Astorga · Carlos Manterola

Alamo M, Sepulveda M, Gellona J, et al. Obes Surg. 2012;22(7):1097-1103.



Remisión: Glicemia <100 mg/dl y/o HbA1c <6.5%
Seguimiento promedio: 18 meses

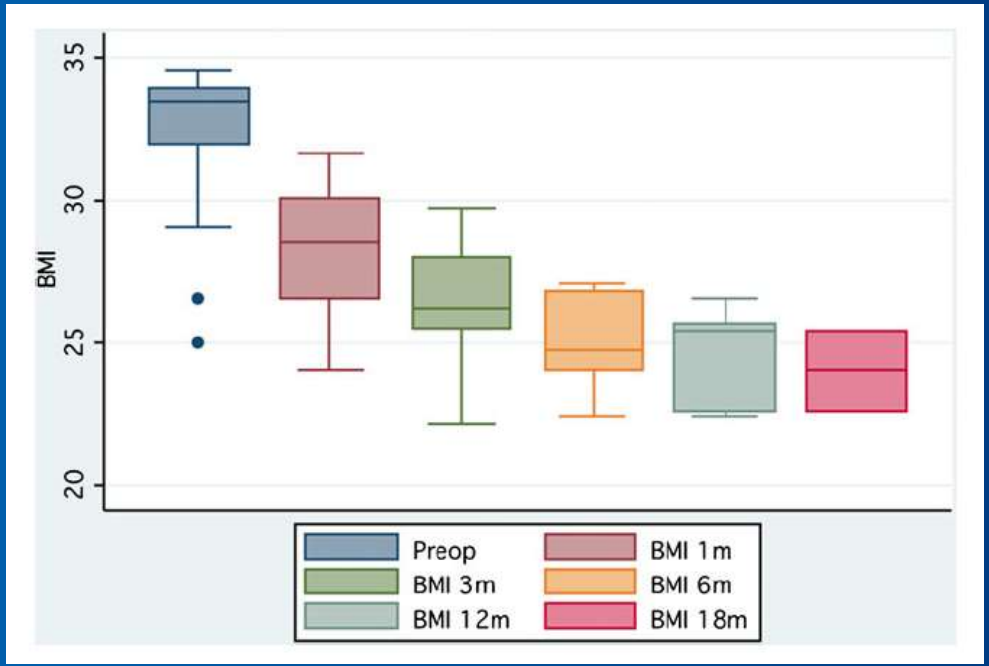
Table 1 Characteristics of patients (N=49)

Age	49±10.6 (36–62) years
Mean preoperative BMI	31.6±2.1 (25–34.9) kg/m^2
Surgical time	123±14 (90–155) min
Postoperative stay	2±0.2 (2–3) days
T2DM treatment	
OHGA	41 (83.7 %)
Insulin	8 (16.3 %)
Comorbidities	
Arterial hypertension	36 (73.0 %)
Dyslipidemia	35 (71.4 %)
Sleep apnea	1 (2.0 %)
Depression	1 (2.0 %)

Alamo et al. Obes Surg (2012) 22:1097-1103

Table 2 Partial or complete remission of type 2 diabetes mellitus in patients receiving oral hypoglycemic agents (OHGA) or insulin

	Partial remission (%)	Complete remission (%)	Total (%)
OHGA (%)	1 (2.5)	40 (97.5)	41 (100)
Insulin (%)	8 (100)	–	8 (100)
Total	9 (18.4)	40 (81.6)	49 (100)



Alamo et al. Obes Surg (2012) 22:1097-1103

Int. J. Morphol.,
32(3):991-997, 2014.

Resultados Iniciales de la Cirugía de la Obesidad con Gastrectomía Vertical y By-Pass de Yeyuno

Initial Results of Weight Loss Surgery with Vertical Gastrectomy and Jejunal By-pass

Carlos Manterola[*,,***]; Munir Alamo[****]; Jaime Horta[**]; Miguel Ángel Icarte[**]; Claudia Riveros[**]; Carlos Ayala[**] & Estela Mendoza[**]**

MANTEROLA, C.; ALAMO, M.; HORTA, J.; ICARTE, M. A.; RIVEROS, C.; AYALA, C. & MENDOZA, E. Resultados iniciales de la cirugía de la obesidad con gastrectomía vertical y by-pass de yeyuno. ***Int. J. Morphol., 32(3)***:991-997, 2014.

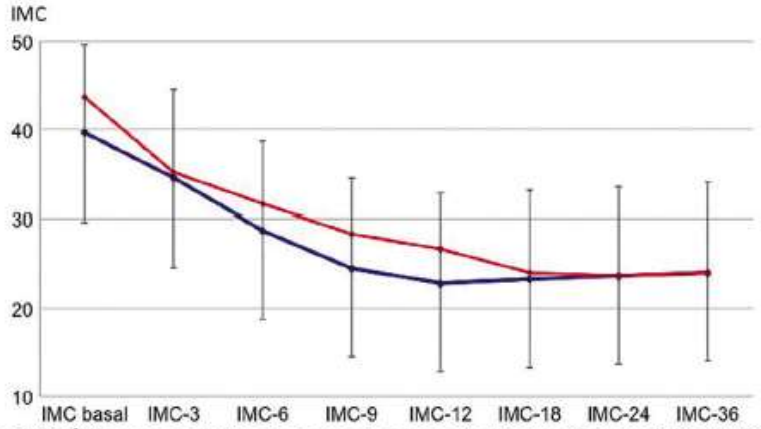


Fig. 2. Gráfico que permite observar el comportamiento de la variable IMC a lo largo del período de seguimiento de la serie, comenzando con la medición basal. La línea azul representa el promedio y la línea roja la mediana de las mediciones de IMC a lo largo del período de seguimiento.

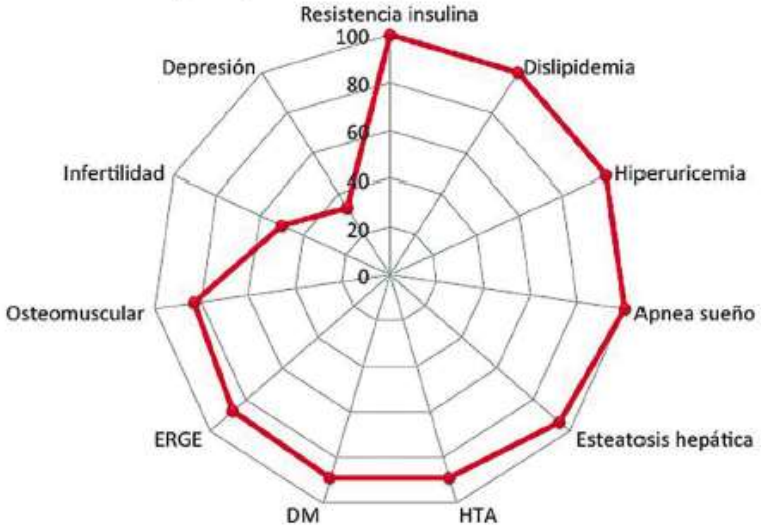


Fig. 3. Gráfico polar o radial, que permite observar el comportamiento de la variable reducción de la comorbilidad, entendiendo esta como un constructo o miniteoría. Se puede apreciar el comportamiento de la reducción de la comorbilidad desde 0% a 100% de cada uno de los ítems medidos (DM, HTA, resistencia a la insulina, hiperuricemia, etc.).

Obesity Surgery
https://doi.org/10.1007/s11695-018-3402-x

ORIGINAL CONTRIBUTIONS

Metabolic Surgery Comparing Sleeve Gastrectomy with Jejunal Bypass and Roux-en-Y Gastric Bypass in Type 2 Diabetic Patients After 3 Years

Matías Sepúlveda[1,2] · Munir Alamo[3] · Yudith Preiss[1] · Juan P. Valderas[4]

Publicado: Agosto 2018

Table 1: Baseline characteristics

Variables	SGJB (n=57)	RYGB (n=55)	*P* value ¶	
Demographic data				
Age (years)	48.6 ± 9.9	49.9 ± 8.7	.494	NS
Female (%)	64.9 (37)	69.1 (38)	.638	NS
Metabolic and anthropometrics				
BMI (kg/m^2)	37.1 ± 5.2	37.8 ± 4.6	.423	NS
FPG (mg/dL)	131 ± 62	140 ± 90	.516	NS
HbA1c (%)	7.1 ± 1.8	7.2 ± 2.5	.458	NS
Total Cholesterol	196 ± 45.4	193.1 ± 44	.748	NS
LDL Cholesterol	111.5 ± 34.7	104.8 ± 35.9	.385	NS
HDL Cholesterol	47.6 ± 11.5	43.6 ± 12.4	.121	NS
Triglycerides	186 ± 110	188 ± 110	.837	NS
Hematocrit	41.5 ± 3.3	42.3 ± 4	.282	NS
Hemoglobin	13.9 ± 1.1	14.1 ± 1.5	.451	NS
Time from T2D onset (years	5.7 ± 7	4.4 ± 4.4	.277	NS
Number of T2D medications	1.4 ± 1	1.5 ± 1	.831	NS
1 OHA	66.7% (32)	60.4% (32)		NS
2 OHA	24.6% (14)	32.1% (17)	.785	NS
3 OHA	4.2% (2)	7.6% (4)		NS
On insulin	15.8% (9)	3.6% (2)	.031	*
Operative time	100 ± 45	100 ± 40	.744	NS
Other comorbidities				
High blood pressure	54.4% (31)	70.9% (39)	.071	NS
Dyslipidemia	61.4% (35)	63.6% (35)	.807	NS
Fatty liver	46.3% (26)	47.6% (26)	.907	NS

Table 2: Primary and secondary endpoints results at 1 and 3 years

	SGJB	RYGB	P value	
	N (1 year) = 52 N (3 years) = 41	N (1 year) = 51 N (3 years) = 34		
Fasting Plasma Glucose				
At 1 year - mg/dL	92.3 ± 15.3	91.7 ± 15.4	NS	0.846
At 3 year - mg/dL	95.5 ± 25	93 ± 18	NS	0.291
BMI				
At 1 year - kg/m^2	27.4 ± 4.2	27.6 ± 4.1	NS	0.902
At 3 year - kg/m^2	28.3 ± 4.5	28.3 ± 2.7	NS	0.918
Change in BMI				
At 1 year - kg/m^2	-9.8 ± 3.6	-10.2 ± 3.1	NS	0.578
At 3 year - kg/m^2	-8.5 ± 3.4	-9.2 ± 3.6	NS	0.442
Excess weight loss				
At 1 year - %	88.4 ± 32	86.8 ± 26.4	NS	0.769
At 3 year - %	79.7 ± 33.9	75 ± 21.2	NS	0.468
Change in LDL				
At 1 year - mg/dL	11 ± 41.1	14.8 ± 38.7	NS	0.691
At 3 year - mg/dL	10.3 ± 44.5	11.8 ± 35.4	NS	0.907

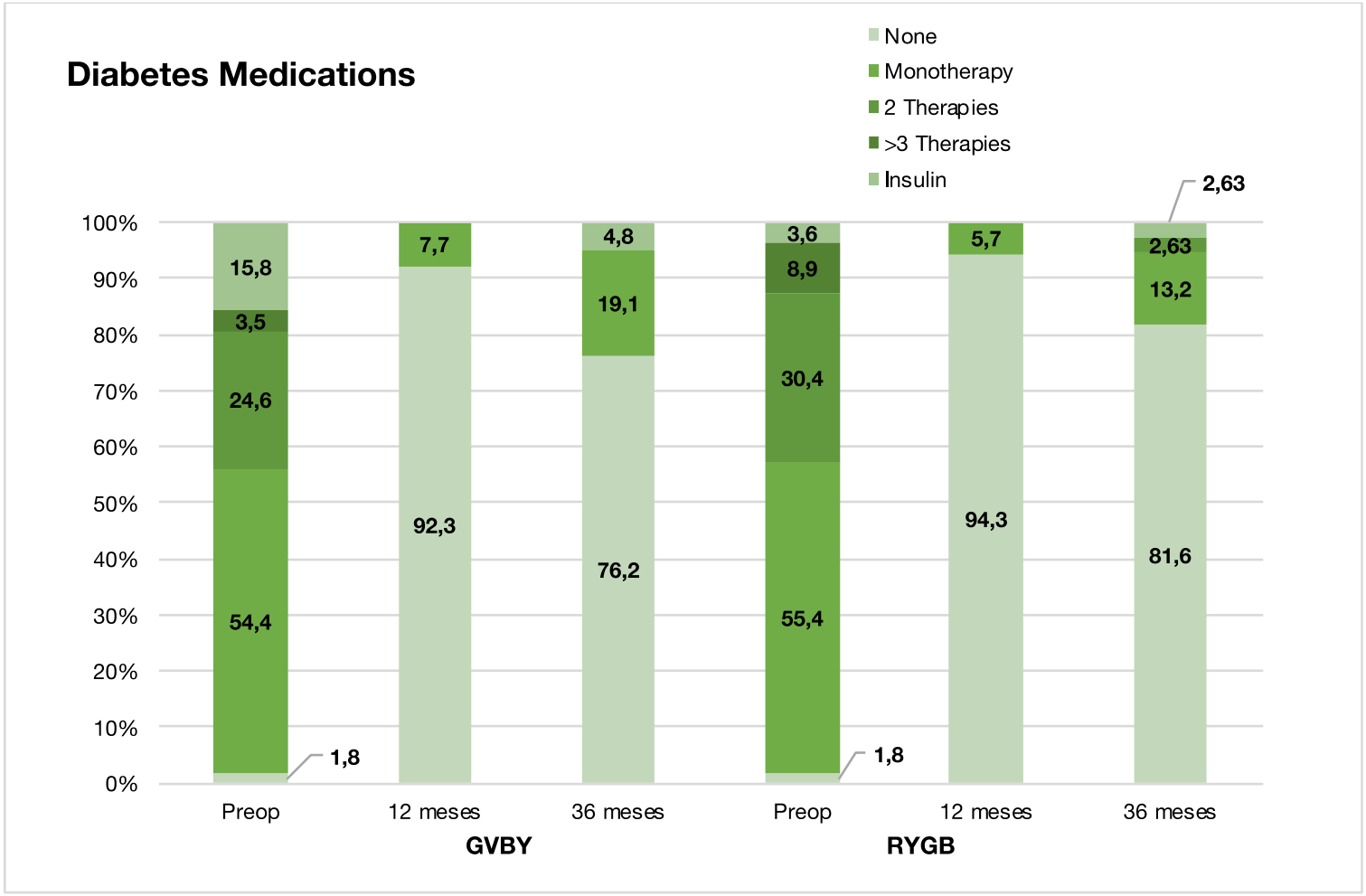

Diabetes Medications
None
Monotherapy
2 Therapies
>3 Therapies
Insulin
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
15,8
3,5
24,6
54,4
1,8
7,7
92,3
4,8
19,1
76,2
3,6
8,9
30,4
55,4
1,8
5,7
94,3
2,63
2,63
13,2
81,6
Preop
12 meses
36 meses
Preop
12 meses
36 meses
GVBY
RYGB

Table 3: Laboratory data results, one year after surgery

Variables	SGJB	RYGB	*P* value	
HDL (mg/dL)	55 ± 16	54 ± 16.1	0.943	NS
Triglycerides (mg/dL)	105 ± 34.6	112.6 ± 48.2	0.394	NS
Hematocrit (%)	41.5 ± 3.8	39.9± 4.2	0.046	*
Hemoglobin (g/dL)	13.8 ± 1.2	13.3 ± 1.4	0.078	NS
GOT (IU/L)	24 ± 7	30 ± 18	0.057	NS
GPT (IU/L)	31.5 ± 11	29 ± 23	0.814	NS
GGT (IU/L)	18 ± 20	23.5 ± 20	0.124	NS
Albumin (g/dL)	4.2 ± 0.2	4.2 ± 0.3	0.999	NS
Calcium (mg/dL)	9.6 ± 0.3	9.3 ± 0.5	0.049	*

Duodenal exclusion?

Table 4: Comparative complications at 12 months

Procedures	SGJB	RYGB
N	52	51
Leaks	0 (0 %)	0 (0 %)
Internal bleeding	2 (3.8 %)	1 (1.9 %)
External bleeding	1 (1.9 %)	0 (0 %)
Conversion to open surgery	0 (0 %)	1 (1.9 %)
Mild hypoalbuminemia (<3.5 g/dL)	0 (0 %)	1 (1.9 %)
Severe hypoalbuminemia (<2.5 g/dL)	0 (0 %)	0 (0 %)
Internal hernia	1 (1.9 %)	1 (1.9 %)
EWL <50%	4 (7.5 %)	3 (5.7 %)
Mortality	0 (0 %)	0 (0 %)

Obesity Surgery
https://doi.org/10.1007/s11695-021-05456-0

REVIEW

Roux-En-Y Gastric Bypass Versus Sleeve Gastrectomy Plus Procedures for Treatment of Morbid Obesity: Systematic Review and Meta-Analysis

Gang Chen[1] · Gui-xiang Zhang[1] · Bo-qiang Peng[3] · Zhong Cheng[1] · Xiao Du[1,2]

Chen G, et al. Obes Surg. 2021 Jul;31(7):3303-3311

Table 1 Summary of the thirteen included studies

Author	Year	Study type	Procedure	Gastric bougie	Length of bypassed intestine	BMI (kg/m^2)	Number of patients (SG+/RYGB)	Age (mean±SD) SG+/RYGB	Number of female patients (SG+/RYGB)	BMI at baseline (mean±SD) SG+/RYGB	Follow-up duration (months)
Bhandari et al. [13]	2019	Retrospective	Banded SG	–	–	BMI≥50	33/102	(44.76±13.5)/(42.99±11.7)	18/59	(56.57±5.86)/(54.64±4.56)	36
J. Wesley Alexander et al. [14]	2009	Retrospective	Banded SG	50 Fr	Zero	BMI<60	27/54	45.4/43.8[1]	43/961	49.6/50[1]	12
Wei-Jei Lee et al. [15]	2014	Retrospective	SADJB	45 Fr	150–200 cm	> 28	50/50	(45±8.7)/(43.5±9.4)	31/34	(38.4±6)/(38.2±6)	12
Ying-Xu Li et al. [16]	2018	Retrospective	SADJB	42 Fr	200 cm	27.5–32.5	9/25	(41.78±8.56)/(45.12±11.12)	3/10	(29.37±1.14)/(30.10±1.67)	12
Praveen Raj et al. [17]	2011	Randomized trial	SG+DJB	36 Fr	125–200 cm	>32	28/29	39.5/43.5[1]	18/16	(48.28±3.80)/(49.29±3.63)	60
Chih Kun Huang et al. [18]	2016	Retrospective	SADJB	> 38 Fr	200 cm	20–32.5	30/30	(49.8±8.8) /(51.8±9.8)	18/15	(28.2±3.6)/(27.8±3.8)	12
Shibo Lin et al. [19]	2019	Retrospective	SG+JJB	About 36 Fr	250–300 cm	≥ 35	37/37	(30.1±9.1)/(30.1±9.0)	22/22	(42.8±4.4)/42.6±4.7)	12
Matías Sepúlveda et al. [20]	2018	Retrospective	SG+JJB	> 38Fr	200 cm	> 25	57/55	(48.6±9.9)/(49.9±8.7)	37/38	(37.1±5.2)/(37.8±4.6)	36
Austin Cottam et al. [21]	2018	Retrospective	SIPS	40 Fr	300 cm (common intestinal)	–	341/457	(47.2±13.5)/(44.5±12.8)	218/365	(49.6±9)/(48.3±9.2)	36
Paul Enochs et al. [22]	2019	Retrospective	SAID-S	40 Fr	300 cm (common intestinal)	–	160/270	(46±10)/(49±11)	–	(48.2±8.1)/(47±7.5)	24
Amit Surve et al. [23]	2020	Retrospective	SAID-S	> 54 Fr	300 cm (common intestinal)	–	61/61	(49.1±14.2)/(44.3±13.2)	49/49	(47.8±8.1)/(48.1±8.5)	60
Antonio Torres et al. [24]	2017	Retrospective	SAID-S	40 Fr	250 cm (common intestinal)	–	109/149	(46.2±11.7)/(48.5±10.1)	–	(45.9±6.4)/42.1±6.1)	36
Luca Sessa et al. [25]	2019	Retrospective	SAID-S	40 Fr	300 cm (common intestinal)	50–60	9/11	(37.3±9.5)/(37.3±10.8)	5/8	(51.2±8.9)/(44.7±3.5)	12

BMI, body mass index; *SAJDB*, single-loop anastomosis duodenal–jejunal bypass with sleeve gastrectomy; *SG+ DJB*, laparoscopic duodenal–jejunal bypass with sleeve gastrectomy; *SG+ JJB*, sleeve gastrectomy with jejunal bypass; *SAID-S*, single anastomosis duodenal–ileal bypass with sleeve gastrectomy; *SIPS*, stomach intestinal pylorus–sparing surgery; *RYGB*; Roux-en-Y gastric bypass

[1] No standard deviation for this

Chen G, et al. Obes Surg. 2021 Jul;31(7):3303-3311

Conclusions

SG plus procedures seem to be superior to RYGB in EWL% and complications.

RCT and long term follow up are needed to confirm these findings.

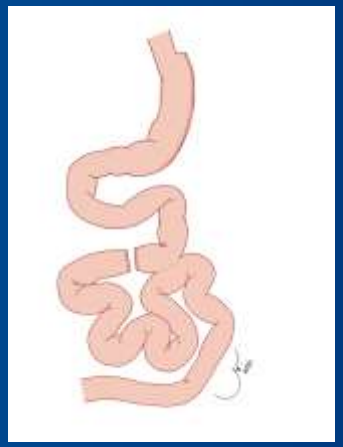
Chen G, et al. Obes Surg. 2021 Jul;31(7):3303-3311

SGJB vs Sleeve
In weight loss. A matched study

Objecti

Comparar baja de peso a largo plazo entre GV y GVBY

versus



- **Cirugía bariátrica en Hospital DIPRECA entre 2008 y 2011**
- **Pareados por sexo e IMC**

Unpublished results

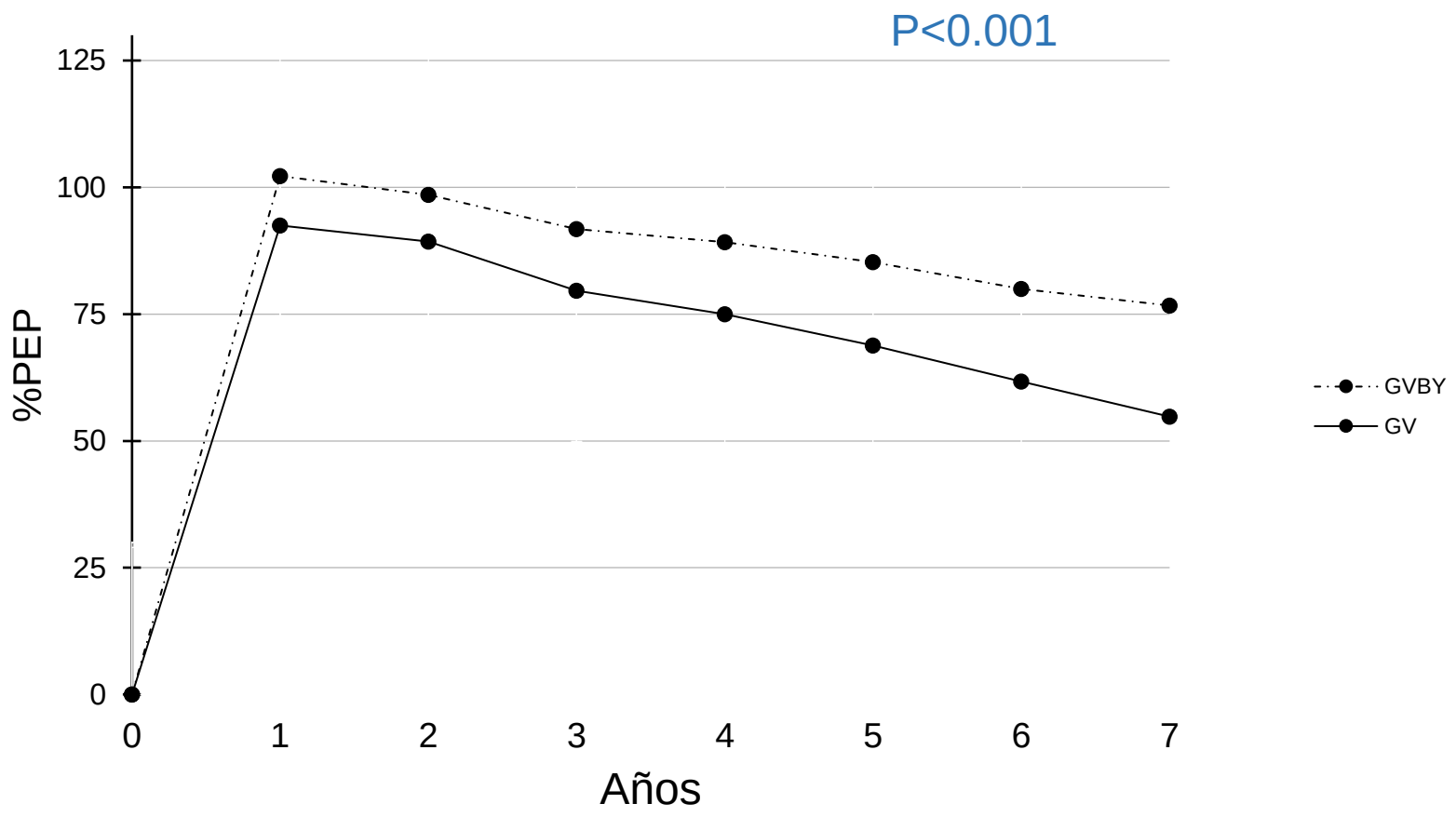
Características basales de los grupos

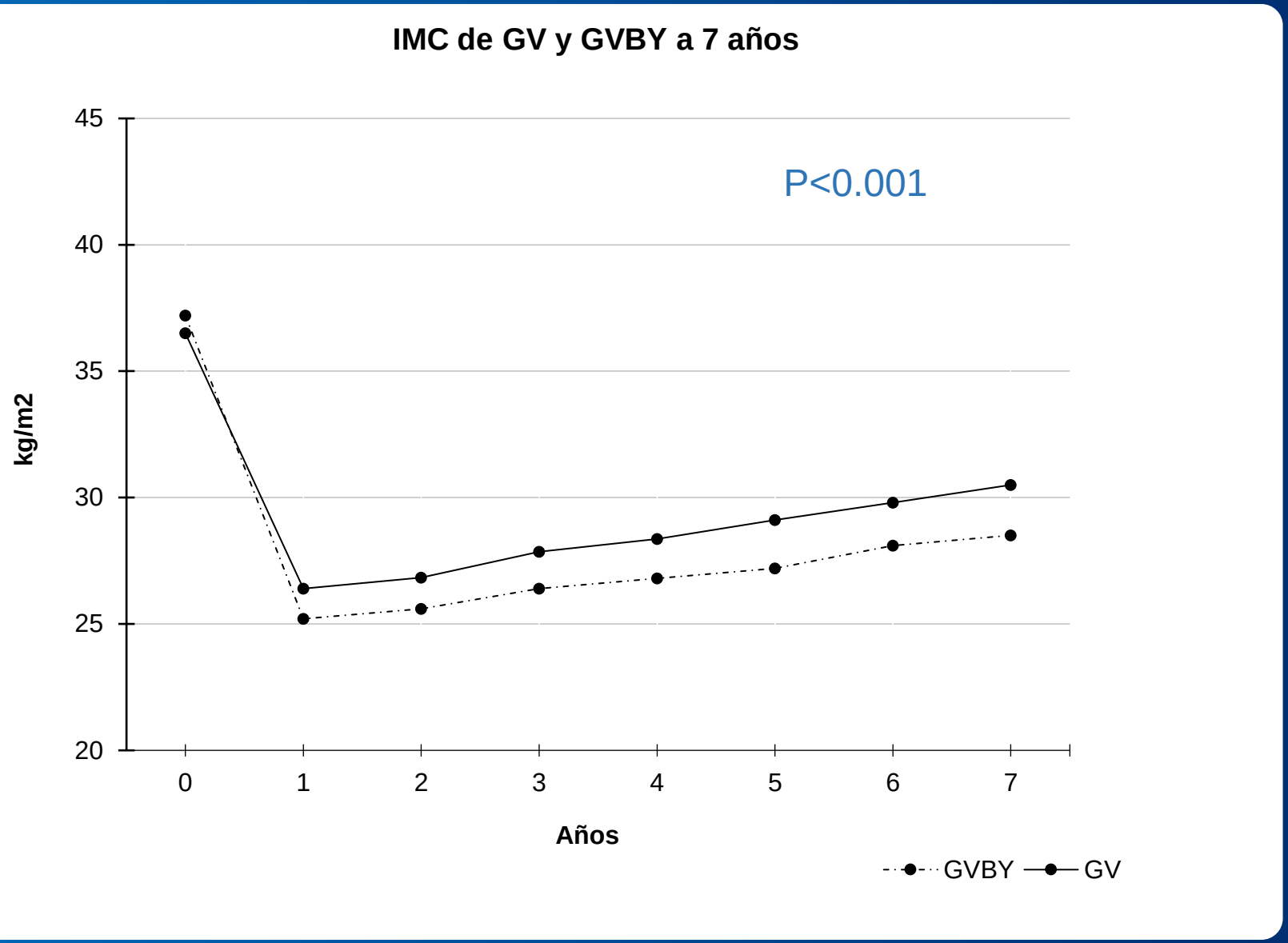
Tabla 1: Características basales de los grupos

	GV	GVBY	p value	
N° total	144	151		
Sexo Femenino (%)	107 (74,3)	109 (72,8)	0,750	
Edad (años)	37 ± 10,8	42 ± 12,3	0,007	*
Peso (kg)	95,6 ± 14,5	99 ± 15,3	0,267	
IMC (kg/m²)	36,5 ± 3,8	37,2 ± 3,8	0,1	
Tiempo operatorio (minutos)	85,6 ± 33,8	124,8 ± 28,7	<0,001	*

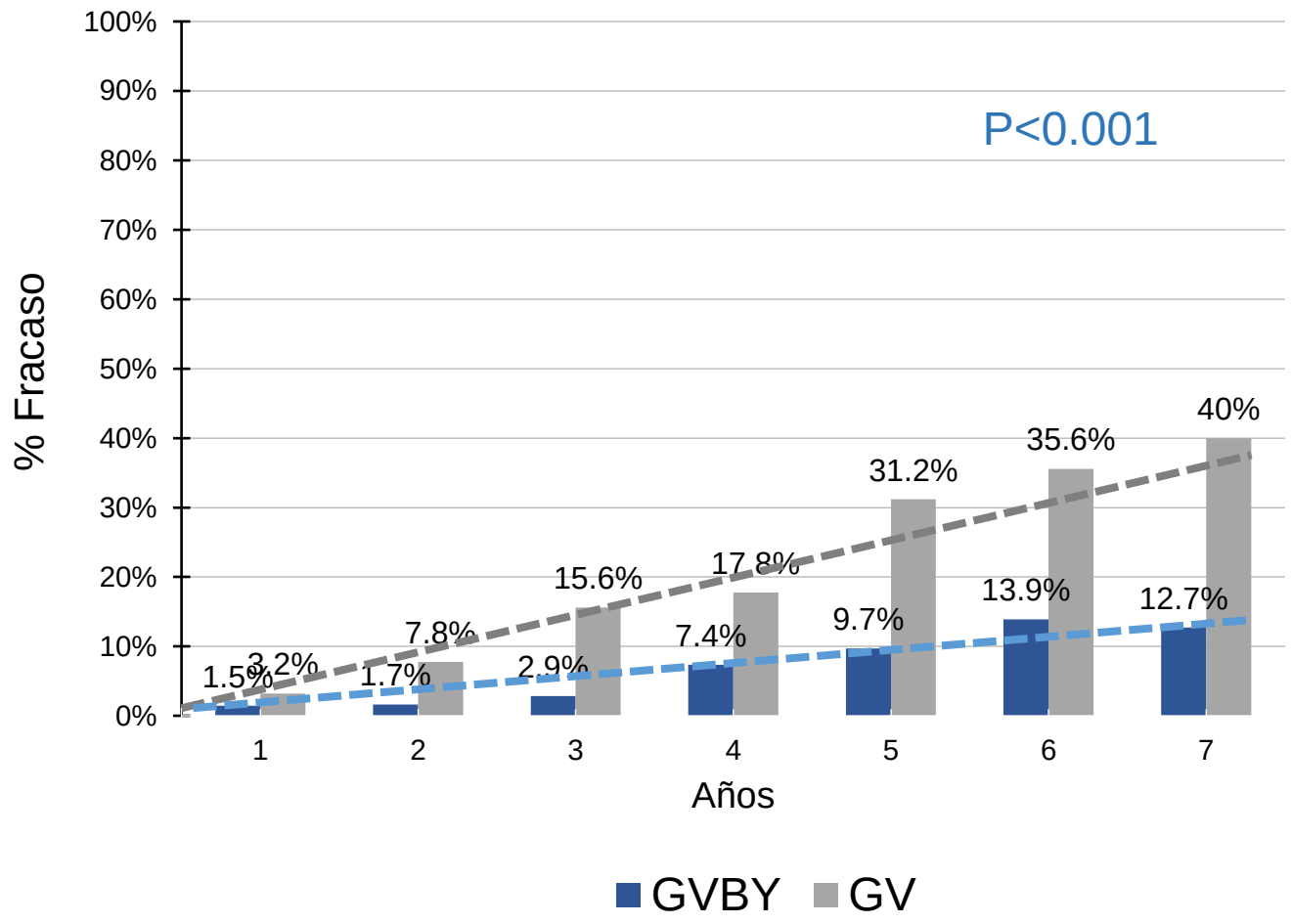
GVBY = gastrectomía vertical con bypass yeyunal; GV= gastrectomía vertical; IMC=indice de masa corporal; Valores representados como promedios y desviación estandar, porcentajes en paréntesis

Evolución de %PEP después de GV y GVBY




IMC de GV y GVBY a 7 años
P<0.001
kg/m2
45
40
35
30
25
20
0
1
2
3
4
5
6
7
Años
GVBY
GV

Tasa de falla %PEP (<50%) después de GV y GVBY a 7 años



Montreal 2014

Dr. Chi-Kun Huang

Novel metabolic surgery: first Asia series and short-term results of laparoscopic proximal jejunal bypass with sleeve gastrectomy

Chih-Kun Huang[1], Rajan Mahendra[2], Ming-Che Hsin[1], Po-Chih Chang[3]

Annals of Laparoscopic and Endoscopic Surgery, 2016

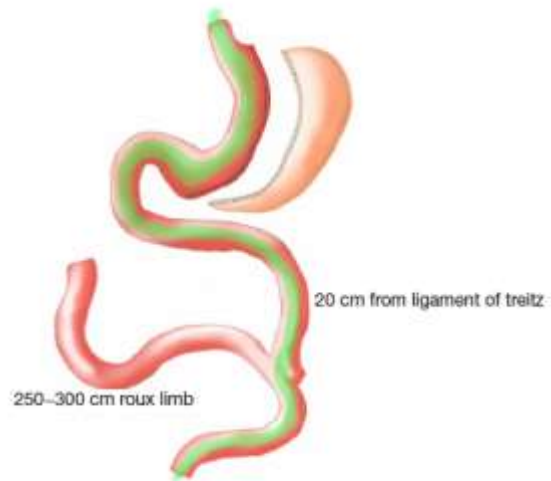


Figure 1 Schematic figure of laparoscopic proximal jejunal bypass with sleeve gastrectomy.

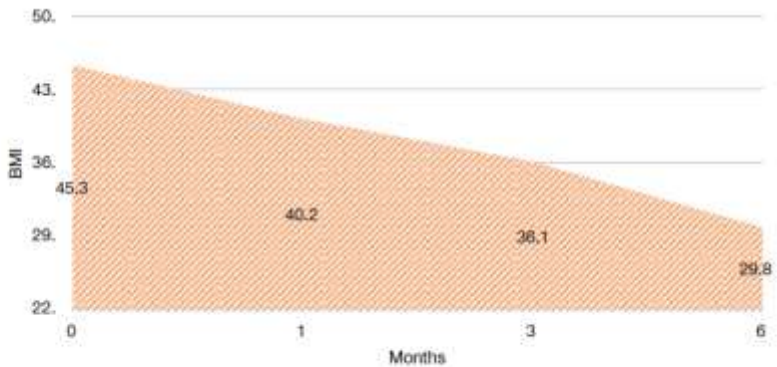


Figure 2 BMI (mean) over 6 months post-operatively.

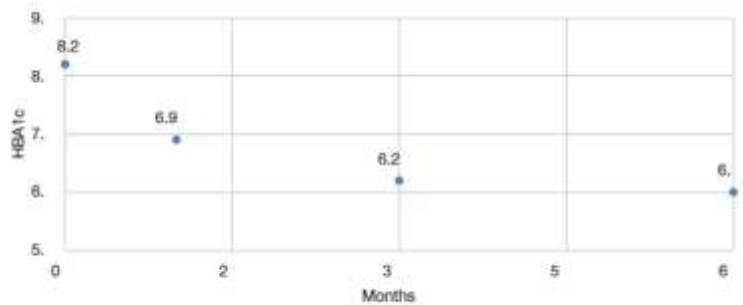


Figure 3 HBA1c levels (mean) over 6 months post-operatively.

Obesity Surgery
https://doi.org/10.1007/s11695-018-3520-5

ORIGINAL CONTRIBUTIONS

Sleeve Gastrectomy with Bypass of Proximal Small Intestine Provides Better Diabetes Control than Sleeve Gastrectomy Alone Under Postoperative High-Fat Diet

Yugang Cheng[1] · Xin Huang[1] · Dong Wu[1] · Qiaoran Liu[1] · Mingwei Zhong[1] · Teng Liu[1] · Xiang Zhang[1] · Guangyong Zhang[1] · Sanyuan Hu[1] · Shaozhuang Liu[1]

Obesity Surgery
https://doi.org/10.1007/s11695-018-03688-1

ORIGINAL CONTRIBUTIONS

Short-Term Outcomes of Sleeve Gastrectomy plus Jejunojejunal Bypass: a Retrospective Comparative Study with Sleeve Gastrectomy and Roux-en-Y Gastric Bypass in Chinese Patients with BMI $\geq$ 35 kg/m^2

Shibo Lin[1] · Wei Guan[1] · Ningli Yang[1] · Yan Zang[1] · Ruiping Liu[1] · Hui Liang[1]

OBES SURG (2016) 26:797–804
DOI 10.1007/s11695-015-1811-7

ORIGINAL CONTRIBUTIONS

Effect of Sleeve Gastrectomy Plus Side-to-Side Jejunoileal Anastomosis for Type 2 Diabetes Control in an Obese Rat Model

Kaijing Wang[1] · Xiaogang Zhou[2] · Giang Quach[3] · Jiajun Lu[2] · Wei Gao[2] · Anan Xu[2] · Jiangfan Zhu[2]

OBES SURG
DOI 10.1007/s11695-017-2571-3

ORIGINAL CONTRIBUTIONS

Small Intestinal Bypass Induces a Persistent Weight-Loss Effect and Improves Glucose Tolerance in Obese Rats

Jiaqing Cao[1] · Quan Ren[1] · Cai Tan[2] · Jinyuan Duan[1]

Obesity Surgery (2019) 29:1148–1153
https://doi.org/10.1007/s11695-018-3607-z

ORIGINAL CONTRIBUTIONS

Proximal Jejunal Bypass Improves the Outcome of Gastric Clip in Patients with Obesity and Type 2 Diabetes Mellitus

Seh-Huang Chao[1,2] · Chia-Lin Lin[1] · Wei-Jei Lee[3] · Jung-Chien Chen[2,3] · Ju Jun Chou[2]

Published online: 29 January 2019

Obesity Surgery
https://doi.org/10.1007/s11695-018-3122-2

ORIGINAL CONTRIBUTIONS

Rapid Improvement in Diabetes After Simple Side-to-side Jejunoileal Bypass Surgery: Does It Need a Ligation or Not?

Quan Ren[1] · Jinyuan Duan[1] · Jiaqing Cao[1]

OBES SURG
DOI 10.1007/s11695-015-1871-8

ORIGINAL CONTRIBUTIONS

Is a Simple Food-Diverting Operation the Solution for Type 2 Diabetes Treatment? Experimental Study in a Non-Obese Rat Model

John Melissas[1] · Drakos Peirasmakis[1] · Vasileios Lamprou[1] · John Papadakis[2]

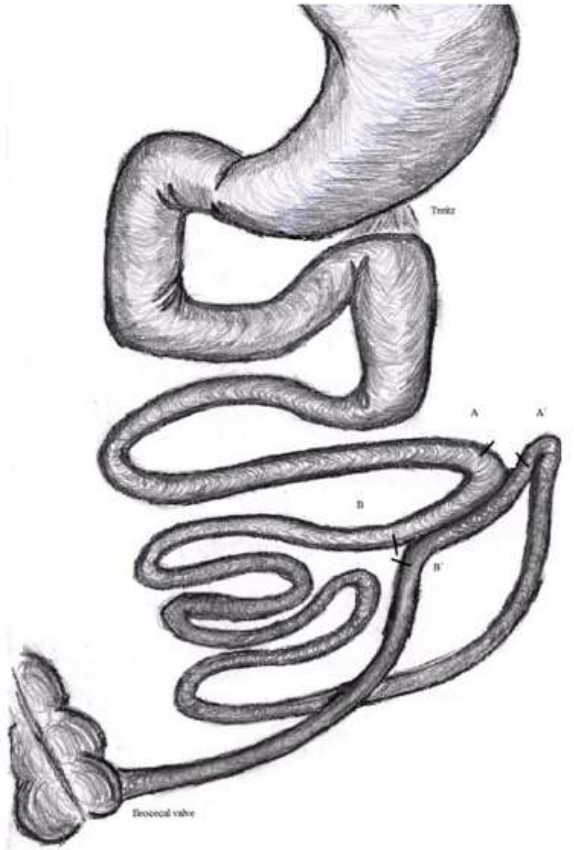


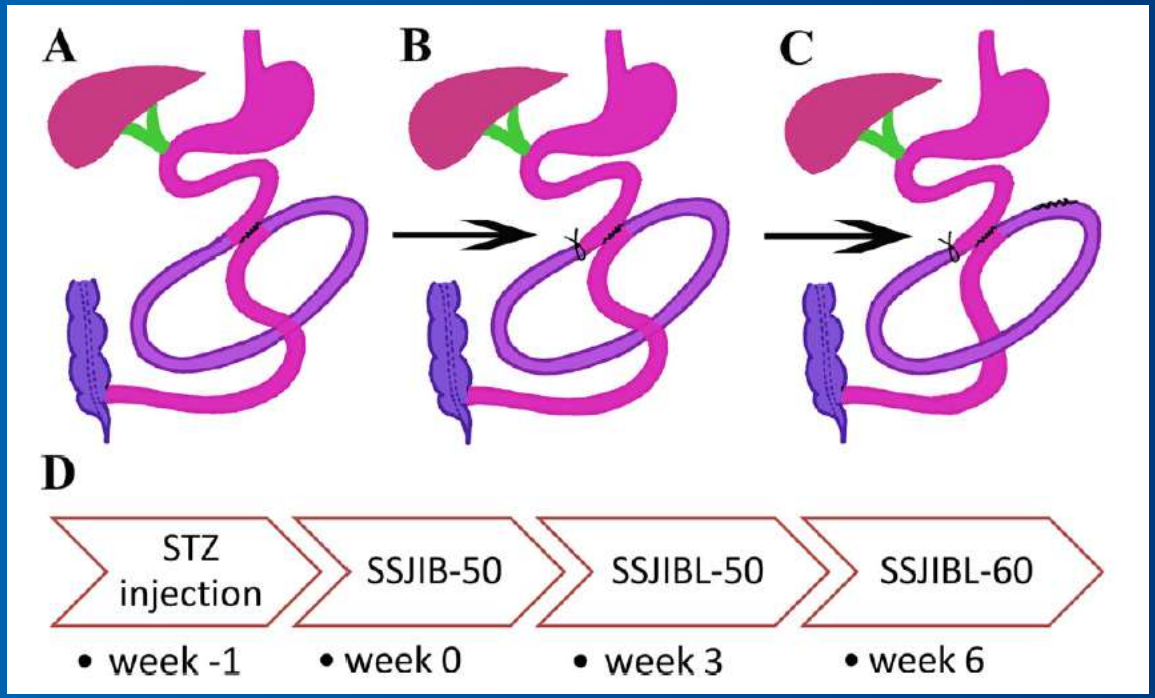
Fig. 1 Side-to-side jejunoileal anastomosis. In the experimental animals, 60 % of the small bowel length was bypassed

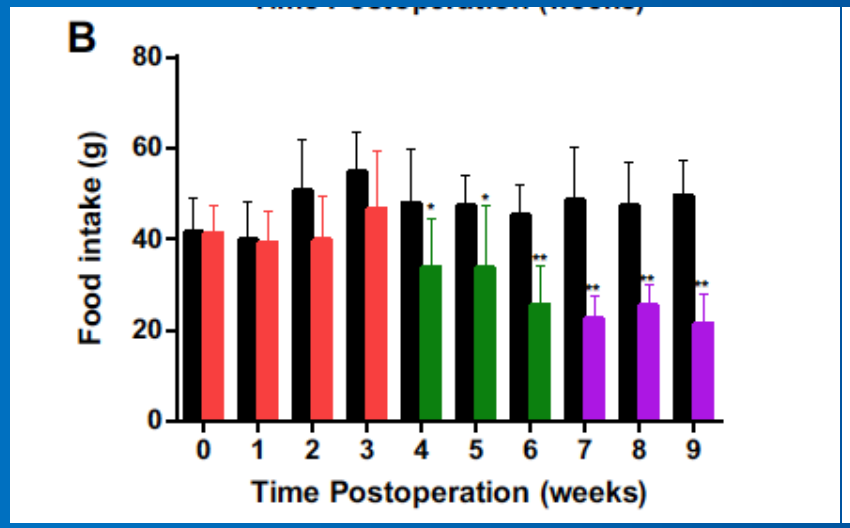
Obesity Surgery
https://doi.org/10.1007/s11695-018-3122-2

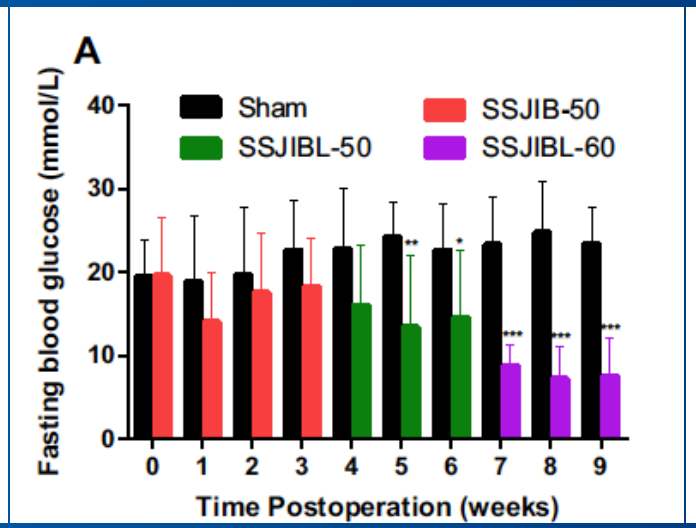
ORIGINAL CONTRIBUTIONS

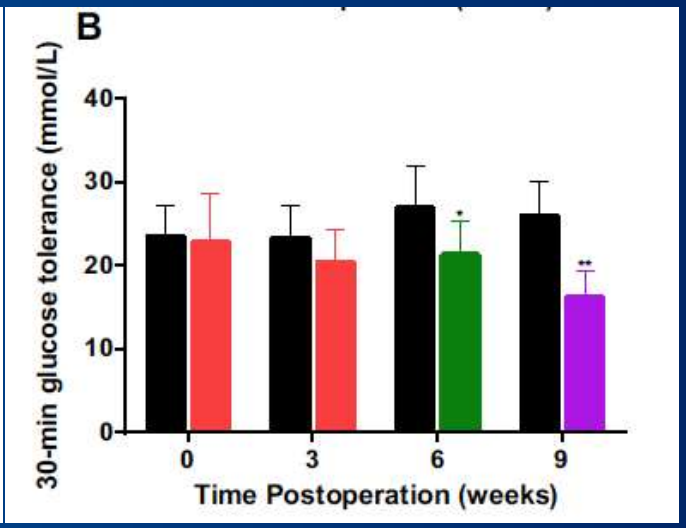
Rapid Improvement in Diabetes After Simple Side-to-side Jejunoileal Bypass Surgery: Does It Need a Ligation or Not?

Quan Ren[1] · Jinyuan Duan[1] · Jiaqing Cao[1]









Cuando hay ligadura o exclusión del yeyuno:

- Menor ingesta de alimentos
- Menor glucosa plasmática
- Mejor tolerancia a la glucosa

中国肥胖代谢外科数据库：2022年度报告

Chinese Obesity and Metabolic Surgery Database: Annual Report 2022

COMES Database

Dr. Wah Yang
Email: yangwah@qq.com

COMES 中国肥胖代谢外科研究协作组
CHINESE OBESITY & METABOLIC SURGERY COLLABORATIVE

腹腔镜手术

Laparoscopic Surgery

单位：例

%表示占总手术量的百分比

SG	RYGB	OAGB	BPD/DS	LSG Plus
23232	896	760	3	1568
87.8%	3.4%	2.9%	0.011%	5.9%

- 腹腔镜胃折叠术：11（0.042%）
- 腹腔镜胃束带术：1（0.004%）

中国医师协会外科医师分会肥胖和糖尿病外科医师委员会, 中国肥胖代谢外科研究协作组. 中国肥胖代谢外科数据库：2022 年度报告[J/CD]. 中华肥胖与代谢病电子杂志, 2023, 9(2): 83-91.

COMES 中国肥胖代谢外科研究协作组
CHINESE OBESITY & METABOLIC SURGERY COLLABORATIVE

腹腔镜袖状胃Plus手术

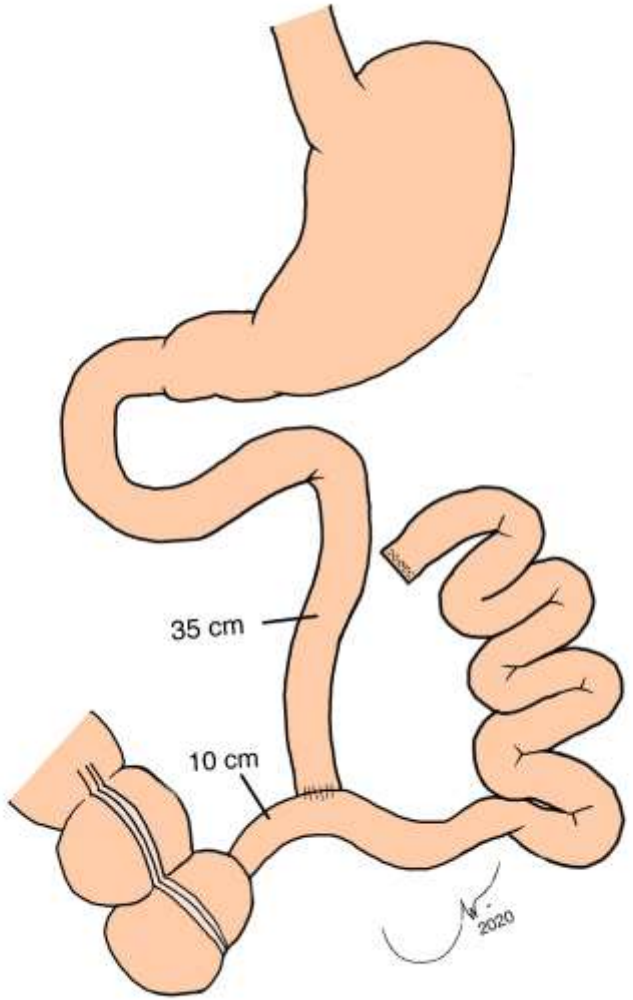
LSG Plus Surgery

单位：例
%表示占LSG Plus总量的百分比

LSG-DJB	SADI-S	LSG-JJB	LSG-TB
48	100	1141	279
3.1%	6.4%	72.8%	17.8%

中国医师协会外科医师分会肥胖和糖尿病外科医师委员会, 中国肥胖代谢外科研究协作组. 中国肥胖代谢外科数据库：2022 年度报告[J/CD]. 中华肥胖与代谢病电子杂志, 2023, 9(2): 83-91.

Small Intestine Bacterial Overgrowth



Jejuno-ileal Bypass

ELSEVIER

Surgery for Obesity and Related Diseases 17 (2021) 131–138

SURGERY FOR OBESITY AND RELATED DISEASES

Original article

Histologic and microbiological findings of the defunctionalized loop in sleeve gastrectomy with jejunal bypass

Matías Sepúlveda, M.D.[a,b,c,*], Munir Alamo, M.D.[d], Cristián Astorga, M.D.[a,b,c], Yudith Preiss, M.D.[a], Sebastián Saavedra, M.D.[a]

[a]*Bariatric and Metabolic Surgery Center, Surgery Department, DIPRECA Hospital, Santiago, Chile*
[b]*Center of Nutrition and Bariatric Surgery, Clínica Las Condes, Santiago, Chile*
[c]*Escuela de Medicina, Universidad Diego Portales, Santiago, Chile*
[d]*Surgery Department, Hospital de Carabineros, Santiago, Chile*

Received 17 March 2020; accepted 12 August 2020

- 11 patients undergoing laparoscopy months or years after a GVBY
- Excisional biopsy of the tip of the excluded segment of jejunum.
- Histological analysis and microbiological cultures

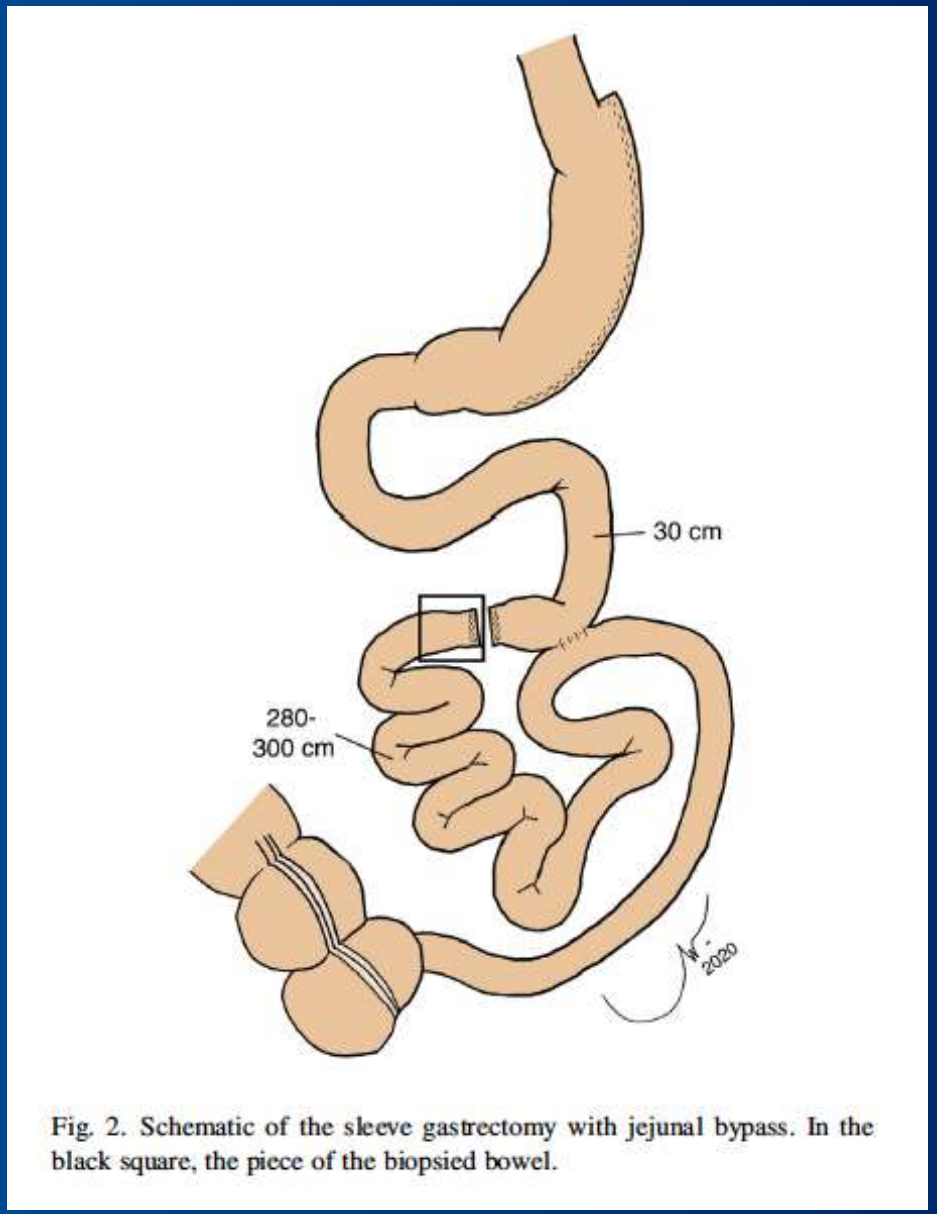


Fig. 2. Schematic of the sleeve gastrectomy with jejunal bypass. In the black square, the piece of the biopsied bowel.

Sepúlveda M, Alamo M, Astorga C, Preiss Y, Saavedra S. Surg Obes Relat Dis. 2021 Jan;17(1):131-138.

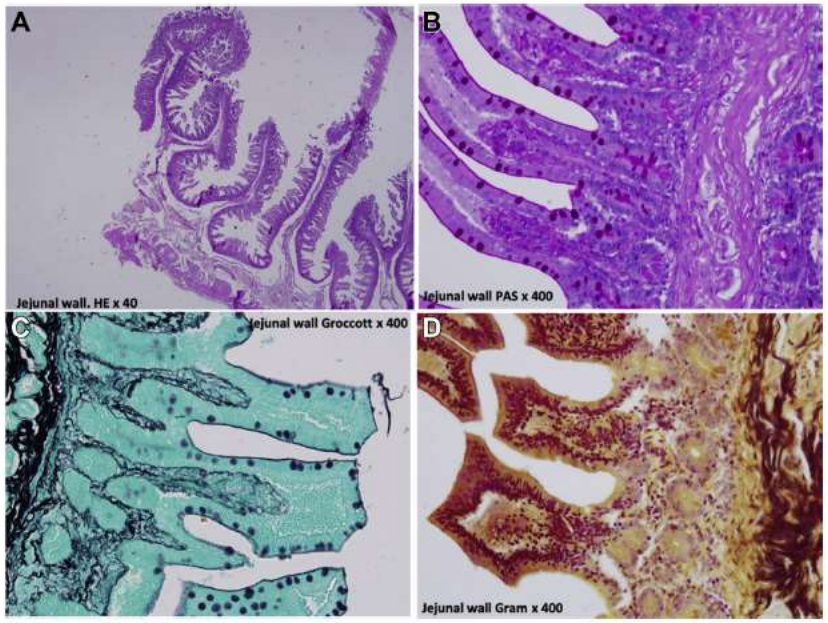
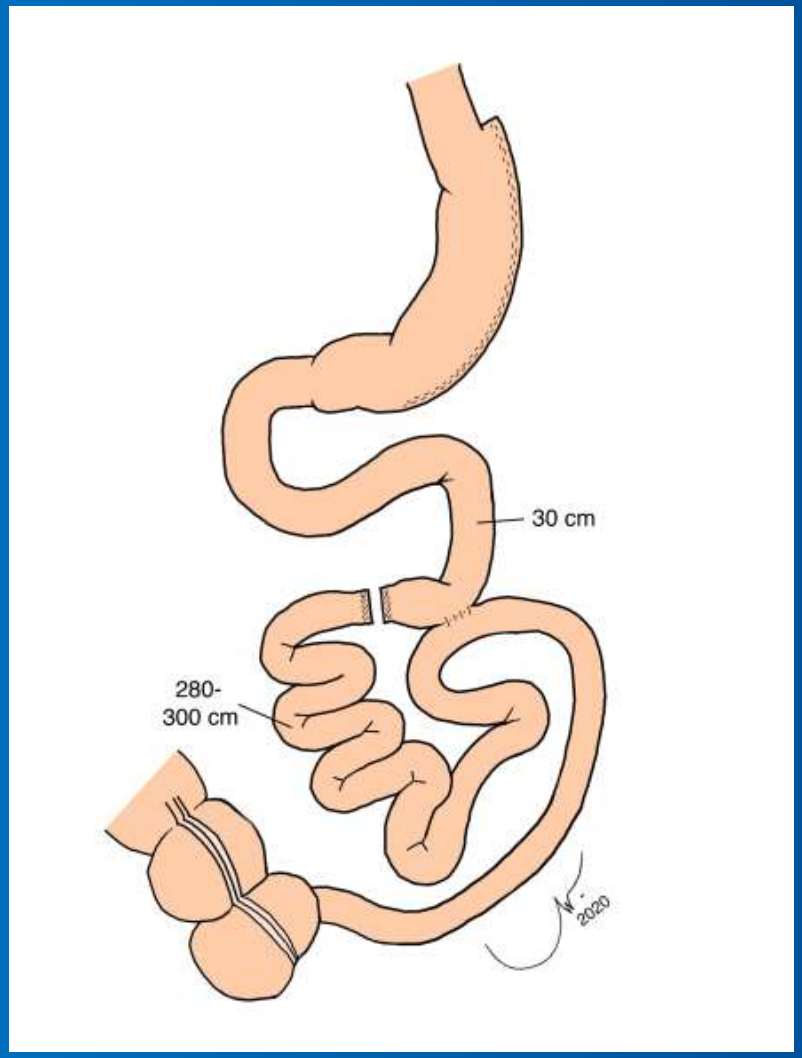


Fig. 3. (A) Jejunal wall, H-E stain; (B) jejunal wall, PAS stain; (C) jejunal wall, GMS stain; (D) jejunal wall, Gram stain. H-E = hematoxylin-eosin; PAS = periodic acid-Schiff; GMS = Grocott-Gomori's methenamine silver.

- No evidence of bacterial overgrowth could be demonstrated in the samples analyzed (no presence of bacteria, no inflammation)
- In theory, the amount of bacteria in the middle intestine is insufficient to cause the SIBO that occurred in the case of the ileal jejunum bypass.

Sepúlveda M, Alamo M, Astorga C, Preiss Y, Saavedra S.
Surg Obes Relat Dis. 2021 Jan;17(1):131-138.


30 cm
280-
300 cm
2020

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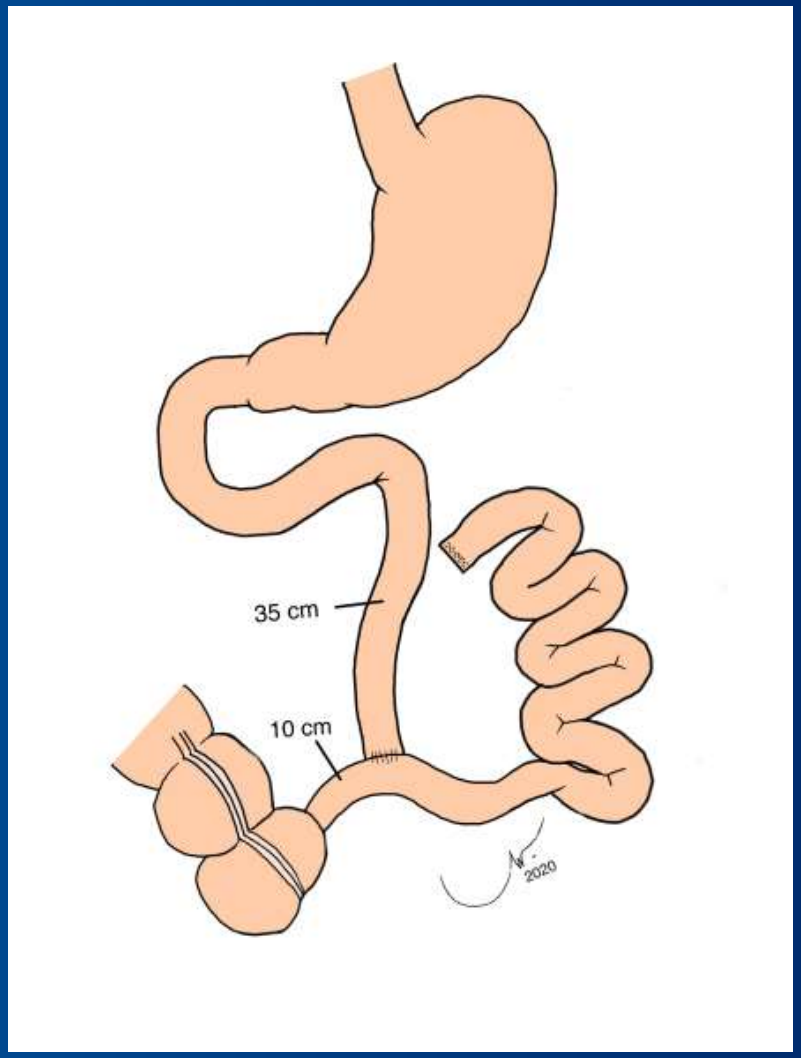
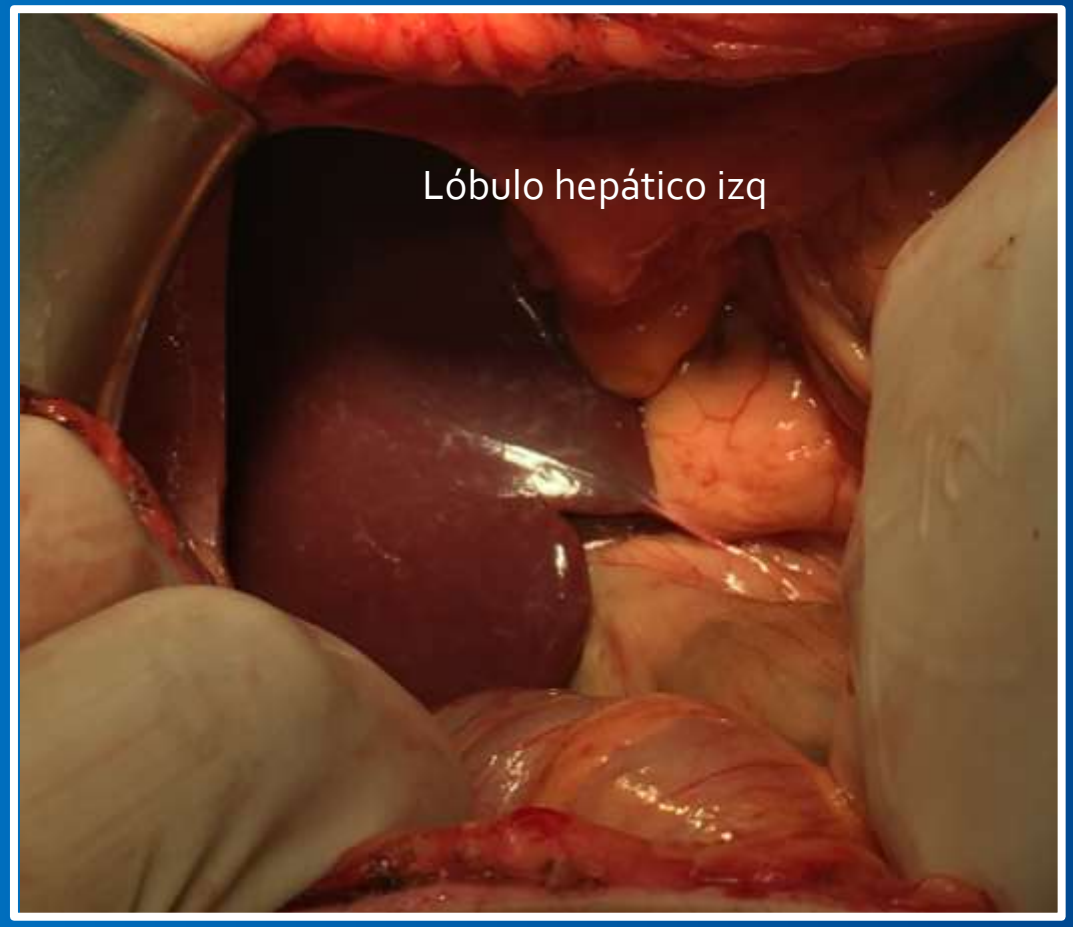
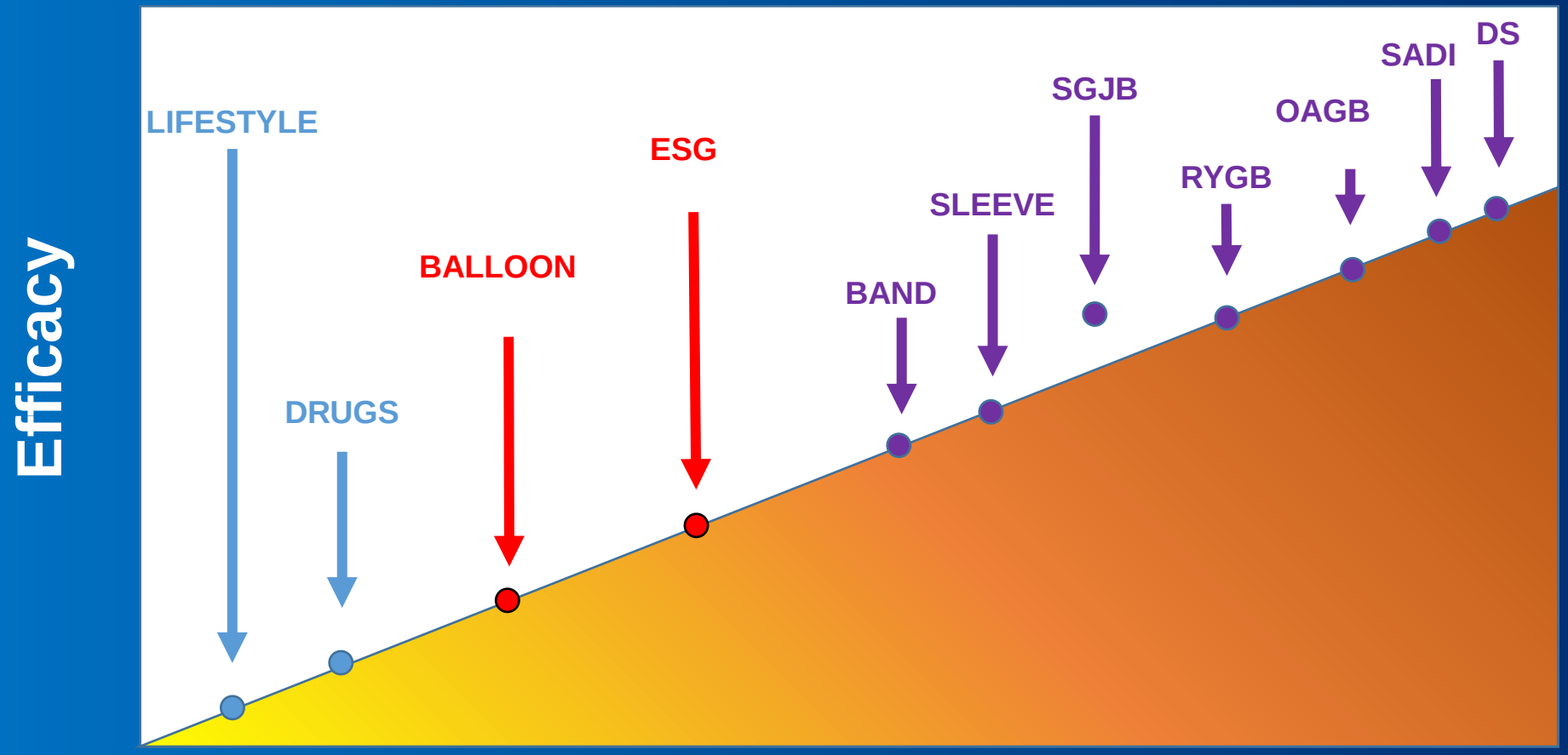

35 cm
10 cm
2020

Gastrectomía Vertical con Bypass yeyunal 2004



Hernia internia 2018

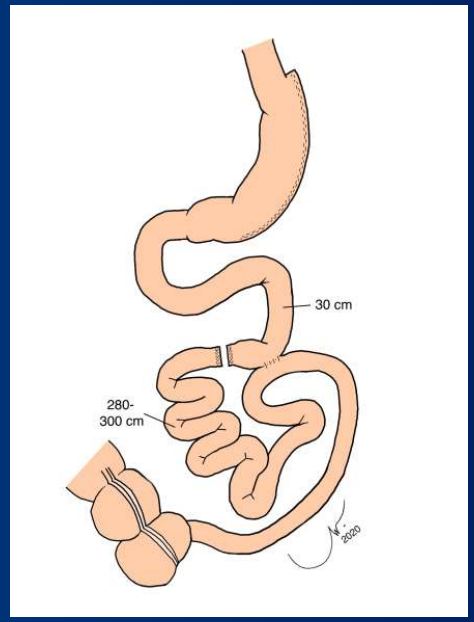
Bariatric/Metabolic Surgery: Customizing Treatment



Conclusiones

- Sleeve + Jejunal Bypass is an unconventional old procedure (2002) created in the search of a more physiological way to treat obesity and metabolic syndrome

- It delivers food directly to the ileum with subsequent increase in plasmatic incretins (theory)



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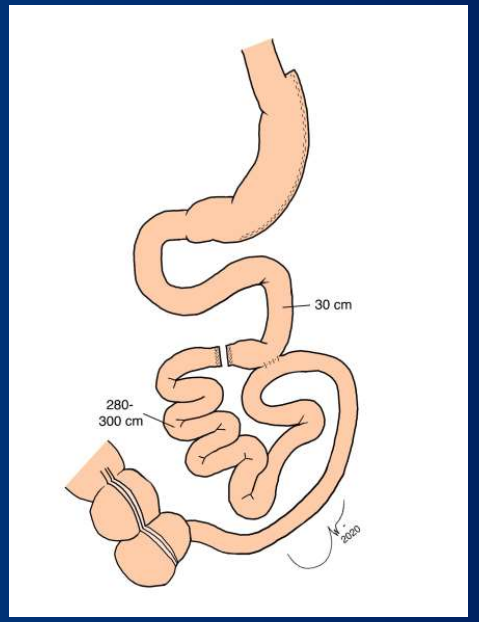


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