



XXIX IFSO World Congress
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"Sleeve Gastrectomy *plus* Magnetic Duodeno-Ileostomy (MagDI): Results of a Multicenter Clinical trial"

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President IFSO 2011-2012

Chairman IFSO's Board of Trustees 2015-2019



Disclosures

Lectures & Consultant for

Johnson & Johnson

Medtronic

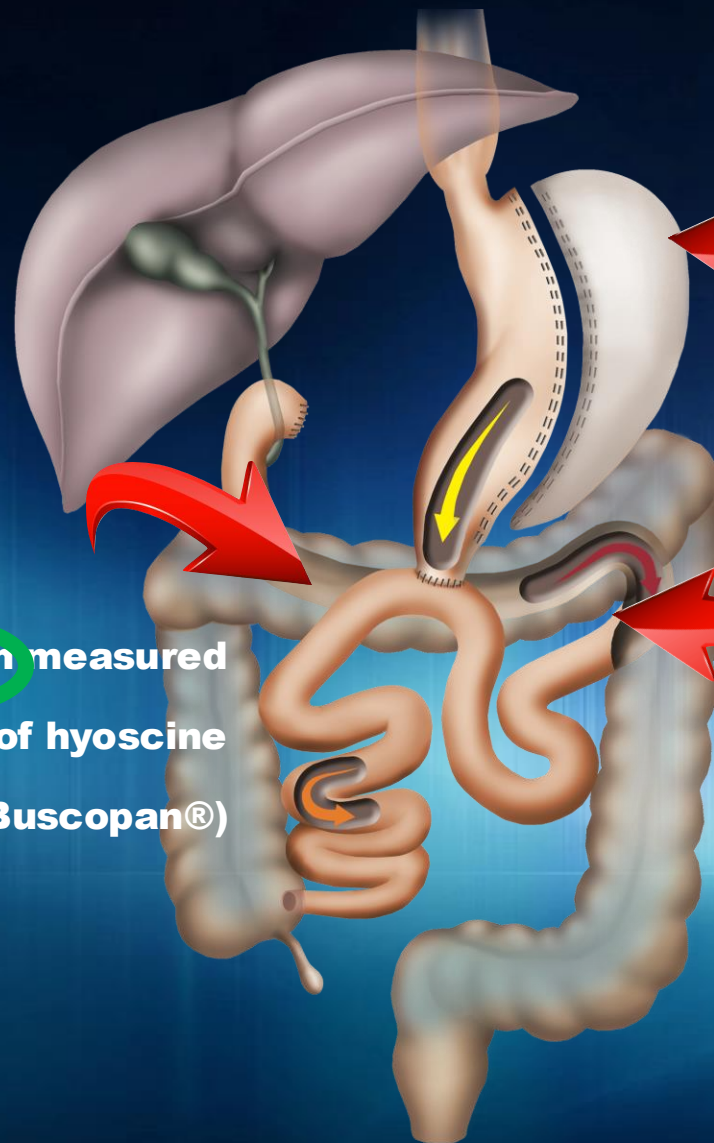
GT Metabolic

Gore Medical



SADI-S

the ileocolic junction is identified and 250 cm measured
proximally (formerly 200 cm), after infusion of hyoscine
butylbromide (Buscopan®)



sleeve gastric resection
over a 54F bougie

eliminates the Roux- en-Y
reconstruction and includes
Billroth II-type one-loop
duodenoileostomy instead



CAETANO
MARCHESINI

Year	Total Cases	Sleeve, n (%)	RYGB, n (%)	Band, n (%)	BPD-DS, n (%)	SADI, n (%)	OAGB, n (%)	Other, n (%)
2020	168,228	108,260 (64.35)	47,846 (28.44)	1,002 (0.60)	2,070 (1.23)	488 (0.29)	1,338 (0.80)	7,224 (4.29)
2021	210,811	134,637 (63.87)	61,031 (28.95)	1,102 (0.52)	2,760 (1.31)	841 (0.40)	943 (0.45)	9,497 (4.51)
2022	230,207	145,005 (62.99)	69,159 (30.04)	1,081 (0.47)	3,634 (1.58)	1,338 (0.58)	903 (0.39)	9,087 (3.95)
2023	217,387	133,550 (61.43)	67,461 (31.03)	732 (0.34)	3,102 (1.43)	1,963 (0.90)	457 (0.21)	10,122 (4.66)
2024	177,297	103,452 (58.35)	58,183 (32.82)	505 (0.28)	2,255 (1.27)	2,670 (1.51)	232 (0.13)	10,000 (5.64)

CONTACT: ASMBSNews@compartnersny.com

Bariatric Surgery Procedures Fall Below 200,000, First Time Since 2020, New Research Finds

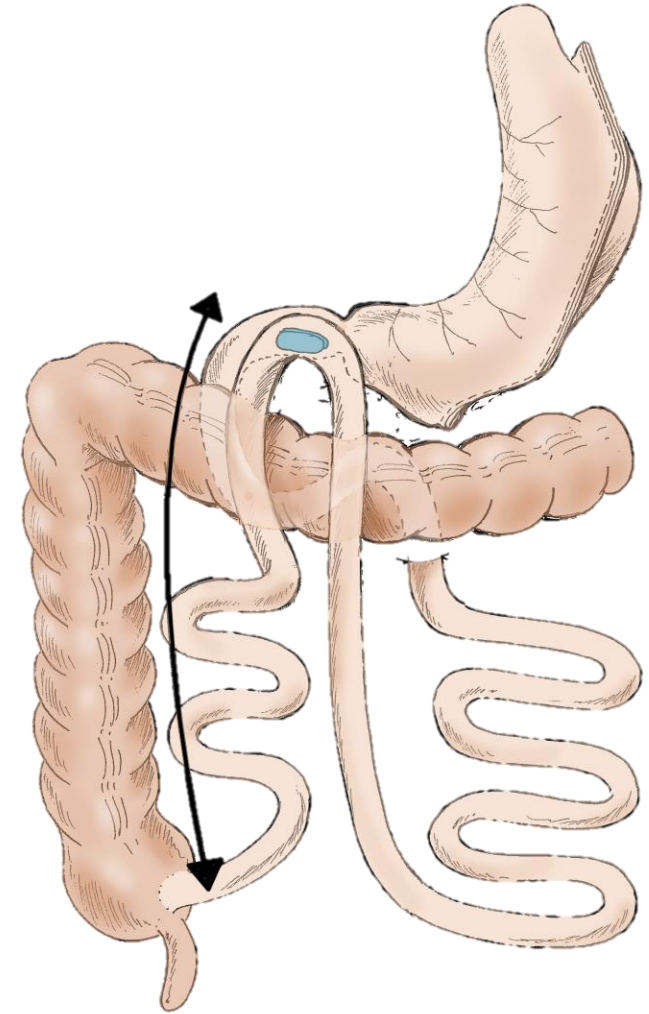
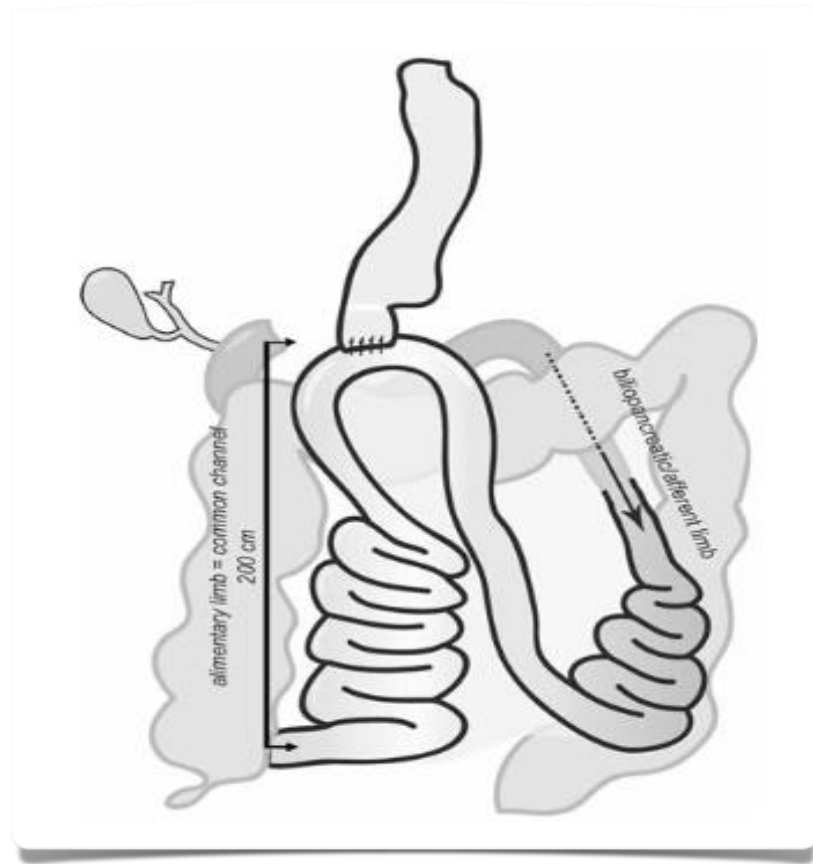
SAN ANTONIO – May 5, 2026 – The number of metabolic and bariatric surgery procedures in the United States dropped below 200,000 in 2024 for the first time since 2020, a more than 20% decline from the prior year, according to new research presented today at the annual scientific meeting of the [American Society for Metabolic and Bariatric Surgery](#) (#ASMBS2026).

Researchers from Loyola University in Chicago based their 2020-2024 estimates after review of the American College of Surgeons Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (ACS-MBSAQIP) database, which includes reported outcomes from all MBSAQIP-accredited bariatric centers.

SADIS



Duodenal-Bipartition

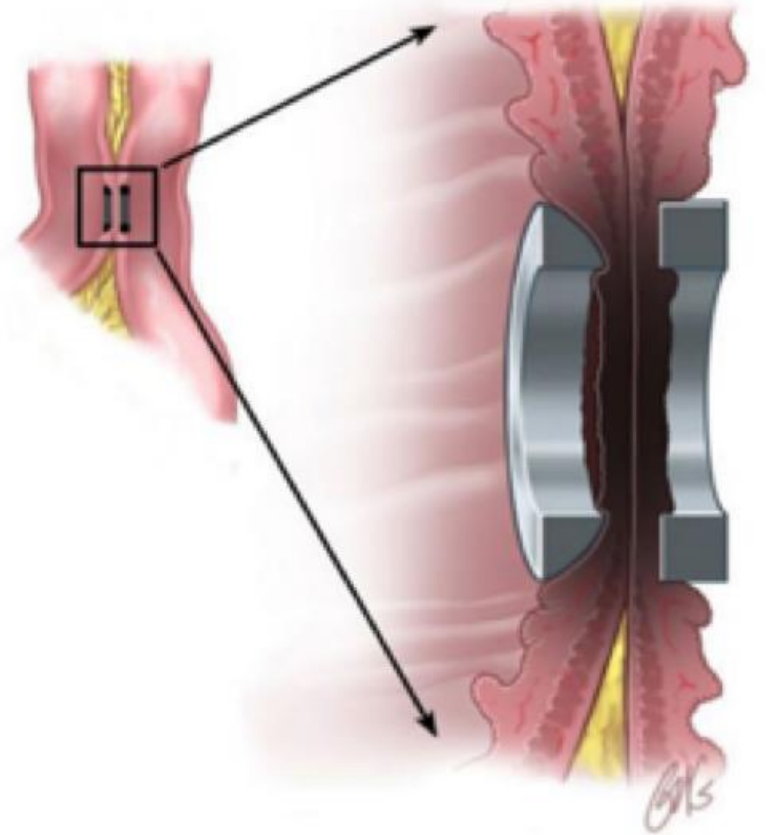


Duodenal-Bipartition: advantages

- Early stimulation of GLP-1 and PYY 3-36
- Partial derivation of calories, and decreased absorption of fat
- Main duodenal absorption of minerals and B,C complex vitamins
- Access to main duodenum (like ERCP)
- Decrease bile reflux (post-pyloric connection)

Introduction: **MAGNETS**

- traction
- magnetic sphincters
- endoscopic retrieval of foreign |
- compresion anastomosis
 - **Magnamosis**, IAS



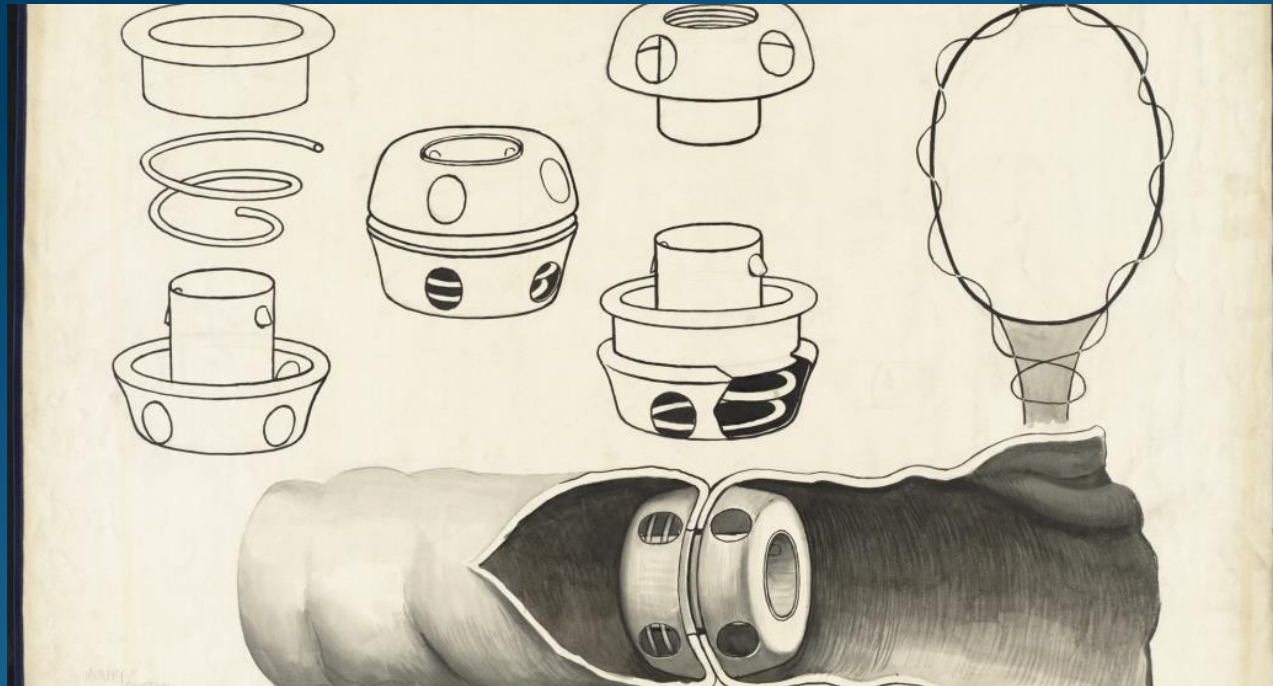
Kaidar-Person O, Rosenthal RJ, Wexner SD, Szomstein S, Person B. Compression anastomosis: history and clinical considerations. Am J Surg. 2008 Jun; 195 (6) 818-26.

Diaz, R., Davalos, G., Welsh, L.K. et al. Use of magnets in gastrointestinal surgery. Surg Endosc. 2019, 33:1721–1730.

Compression Anastomosis

Murphy Button, 1892

Alexian Brothers Hospital Chicago



Murphy Button

The Murphy button, introduced by Dr. Murphy in 1892, was a major breakthrough in intestinal surgery. It allowed operations to be performed quickly and efficiently, reducing the risk of patient shock. The cap of each mushroom-shaped half was stitched to an intestinal opening and the stems were joined. As the sections of intestine healed together, the area directly attached to the metal button decayed, releasing it to be passed.



THE MAGNET STUDY

Creation of Side-to-Side Compression Anastomosis
Using the GT Metabolic Solutions Magnetic Anastomosis
System (MAGNET System) to Achieve **Duodeno-
Ileostomy Diversion** in Adults with Obesity and with
or without Type 2 Diabetes Mellitus

Methodology

- Multicentric study
 - Stage 1 - first in human and proof of concept (5 patients)
 - Stage 2 - feasibility (30 patients)
- 5 centers in Canada and Europe
- Ethics committee approval and AEMPS approval
- Independent Data Safety Monitoring Board

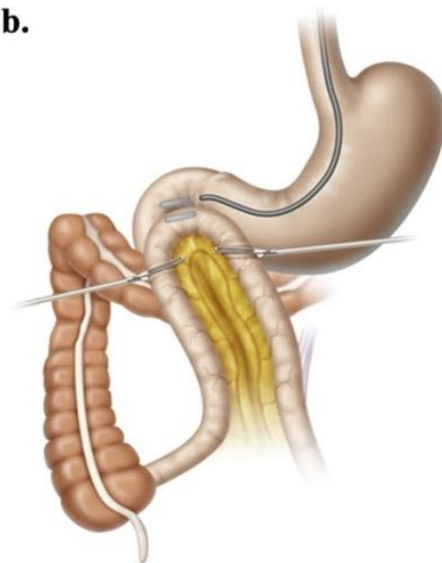
A prospective observational open-label evaluation (Clinicaltrials.gov NCT#05,322,122) of the investigational Mag-



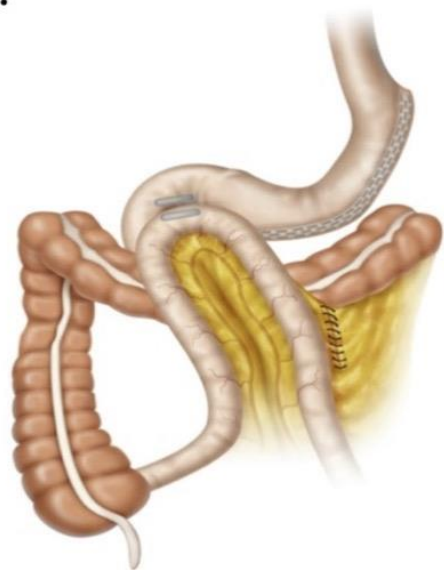
a.



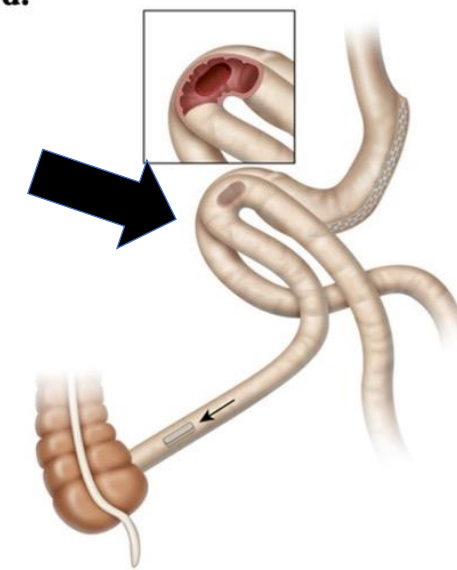
b.



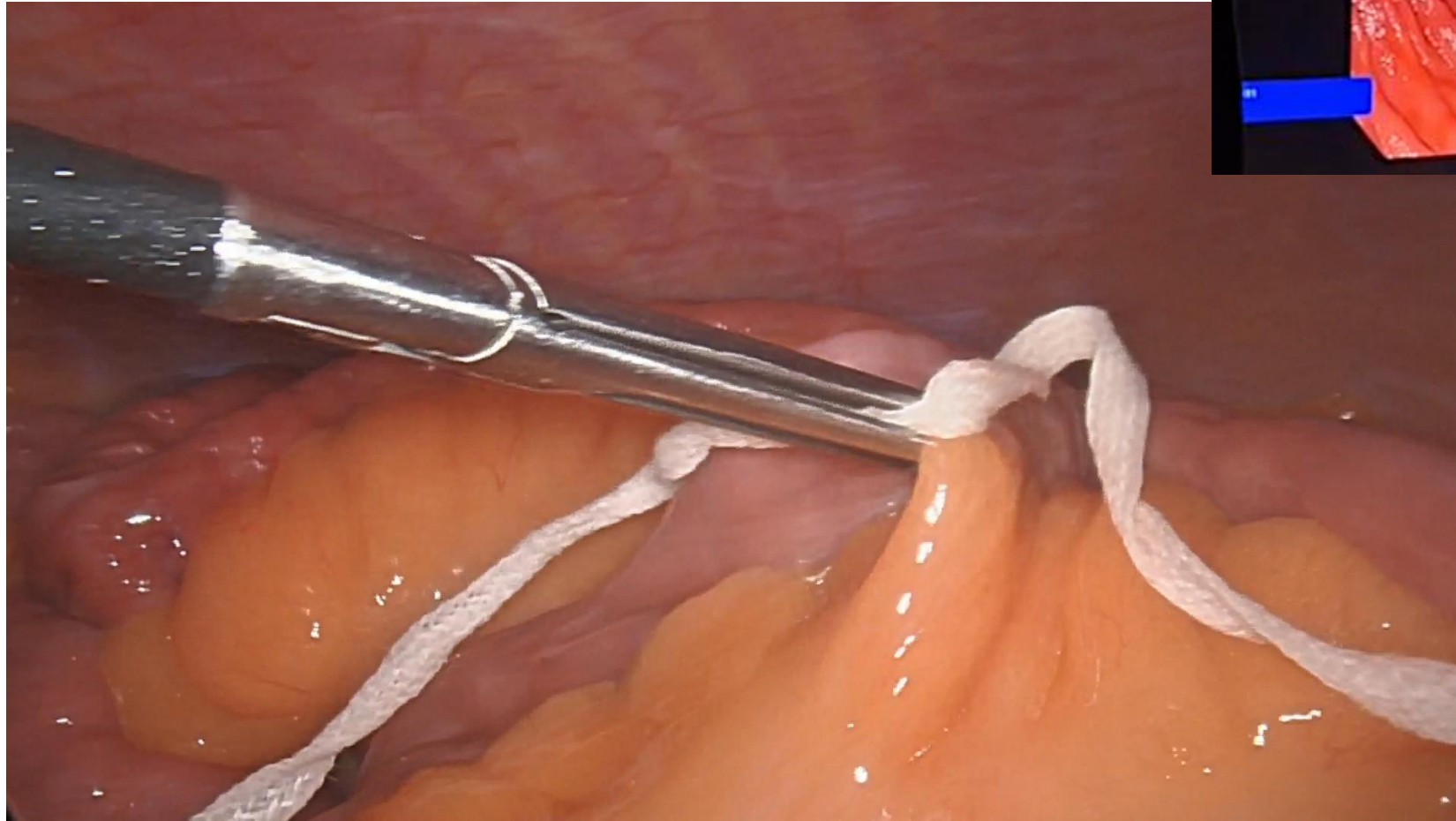
c.



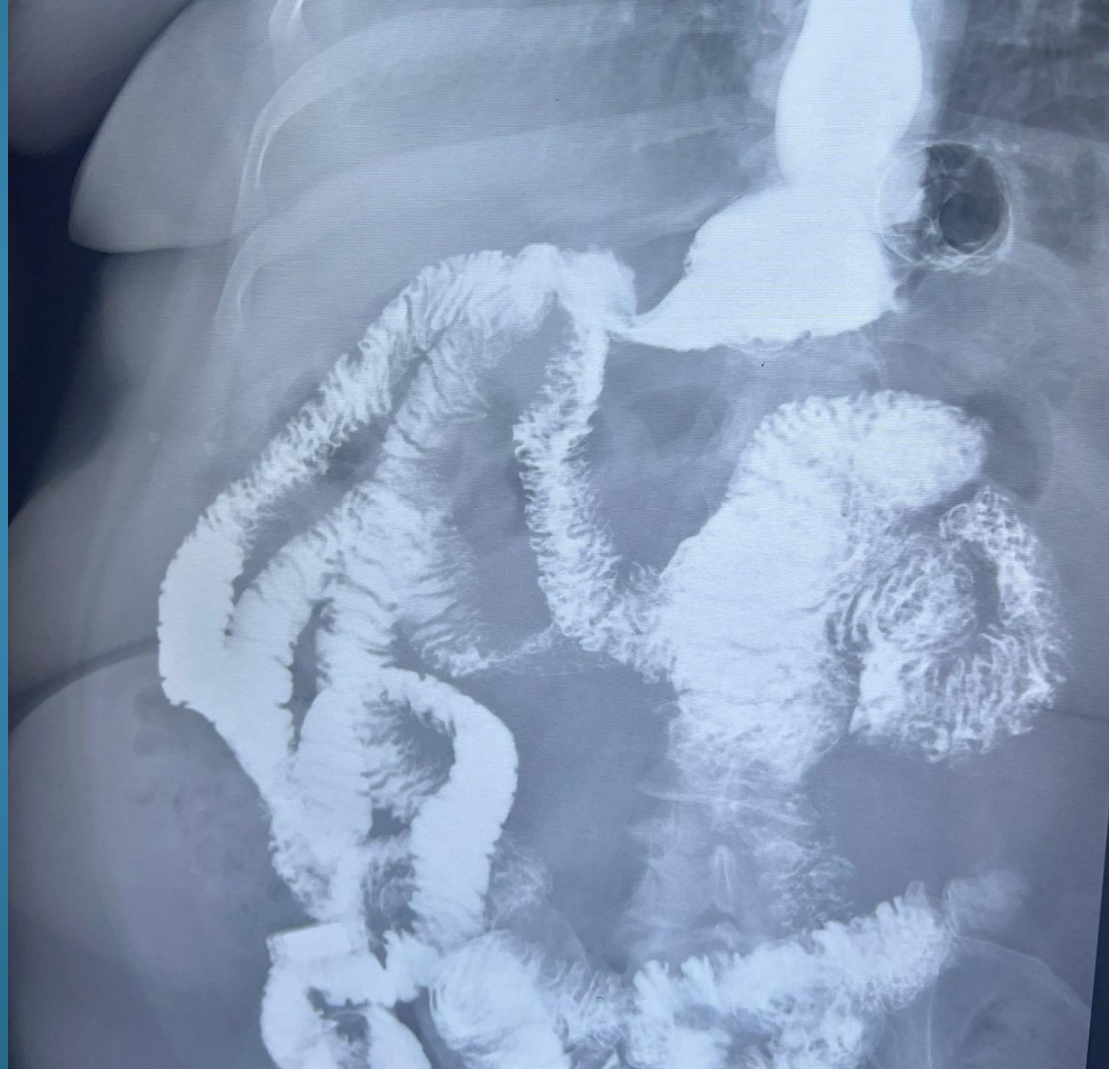
d.



Surgical technique



Barium Swallow



Early Data Demonstrates Safety of the Magnet System

- A total of 57 adverse events (AEs) reported in 21 subjects
 - No adverse events were assessed as related to the Magnet device
 - Forty-seven events (83%, 47/57) were grade I-II on Clavien-Dindo Classification
 - Ten (17%, 7/57) were grade III on Clavien-Dindo Classification (*next slide*)
- No (0%) reports of anastomotic bleeds, leaks, obstruction, or infection, and no deaths

Clavien-Dindo Classification (n total AEs)	Procedure – D30 (n=57)	>D30 – D180 (n=57)	TOTAL (n=57)
Grade I	17 (30%)	8 (14%)	25 (44%)
Grade II Requiring pharmacological treatment	9 (16%)	13 (23%)	22 (39%)
Grade III Requiring surgical, endoscopic, or radiological intervention	6 (10%)	4 (7%)	10 (17%)
Grade IV Life-threatening	0 (0%)	0 (0%)	0 (0%)
Grade V Death of a patient	0 (0%)	0 (0%)	0 (0%)
TOTAL Adverse Events	32 (56%)	25 (44%)	57 (100%)

Side-to-side magnet anastomosis system duodeno-ileostomy with sleeve gastrectomy: early multi-center results

Michel Gagner^{1,8} · Guy-Bernard Cadere² · Andres Sanchez-Pernaute³ · David Abuladze⁴ · Todd Krinke⁵ · J. N. Buchwald⁶ · Nathalie Van Sante⁷ · Marc Van Gossum² · Jana Dziakova³ · Levan Koiava⁴ · Maja Odovic³ · Mathilde Poras² · Lamees Almutlaq¹ · Antonio J. Torres³

Surgical Endoscopy (2023) 37:6452–6463

6457

Table 2 Evolution of weight and clinical parameters after side-to-side magnetic duodeno-ileostomy with sleeve gastrectomy

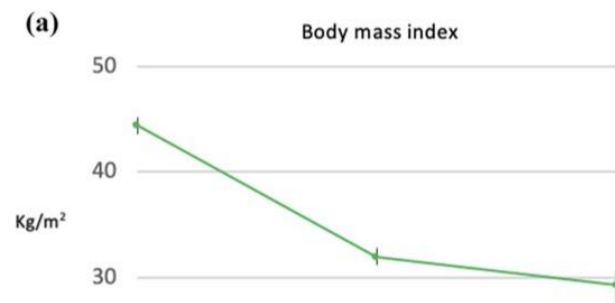
	Baseline	6-month follow-up (n = 24)			12-month follow-up (n = 5)		
	Mean ± SEM	Mean ± SEM	Mean change ± SEM (95%CI)	P-value	Mean ± SEM	Mean change ± SEM (95%CI)	P-value
Weight							
Absolute wt, kg	121.9 ± 3.3	87.8 ± 2.8	34.2 ± 1.6 (30.9, 37.4)	<0.001	77.6 ± 4.7	40.0 ± 3.1 (31.4, 48.6)	<0.001
BMI, kg/m ²	44.4 ± 0.8	32.0 ± 0.8	12.4 ± 0.5 (11.5, 13.3)	<0.001	29.3 ± 1.5	15.1 ± 1.0 (12.2, 18.0)	<0.001
TWL, %	–	28.1 ± 1.0	–	–	34.0 ± 1.4	–	–
EWL, %	–	66.2 ± 3.4	–	–	80.2 ± 6.6	–	–
Clinical							
HbA1 _C , %*	6.2 ± 0.3	5.1 ± 0.2	1.1 ± 0.4 (0.2, 1.9)	<0.05	4.8 ± 0.2	2.0 ± 1.1 _††	0.173
Glucose, mg/dL [†]	111.3 ± 6.1	86.5 ± 3.5	24.8 ± 6.6 (11.0, 38.6)	<0.001	87.3 ± 6.3	53.8 ± 6.3 _††	0.113

BMI: Body mass index; TWL: Total weight loss; EWL: Excess weight loss; HbA1_C: Glycosylated hemoglobin

*HbA1_C baseline n = 20; 6-month n = 19; 12-month n = 4

[†]Glucose baseline n = 21; 6-month n = 21; 12-month n = 4

^{††}Not applicable due to small sample size



Obesity Indicator

D180
n=24

D360
n=5

- * Obesity indicators in this cohort (n=24) are very promising at six months
- * Impressive results continue for the subset of 5 subjects followed to one year

% EWL
Mean (SEM)

66 (3)

80.2 (6.6)

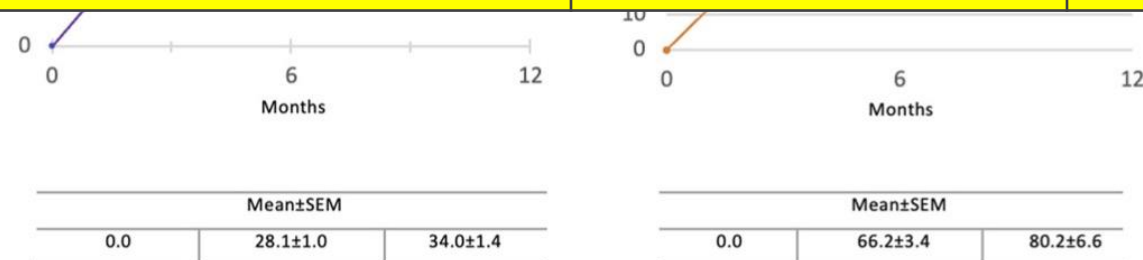


Fig. 5 Mean changes in weight from baseline to 6 months (n=24) and 12 months (n=5) following side-to-side Magnet System duodeno-ileostomy with sleeve gastrectomy in (a) body mass index (BMI, kg/m²); (b) total weight loss (%TWL); and in (c) excess weight loss (%EWL)

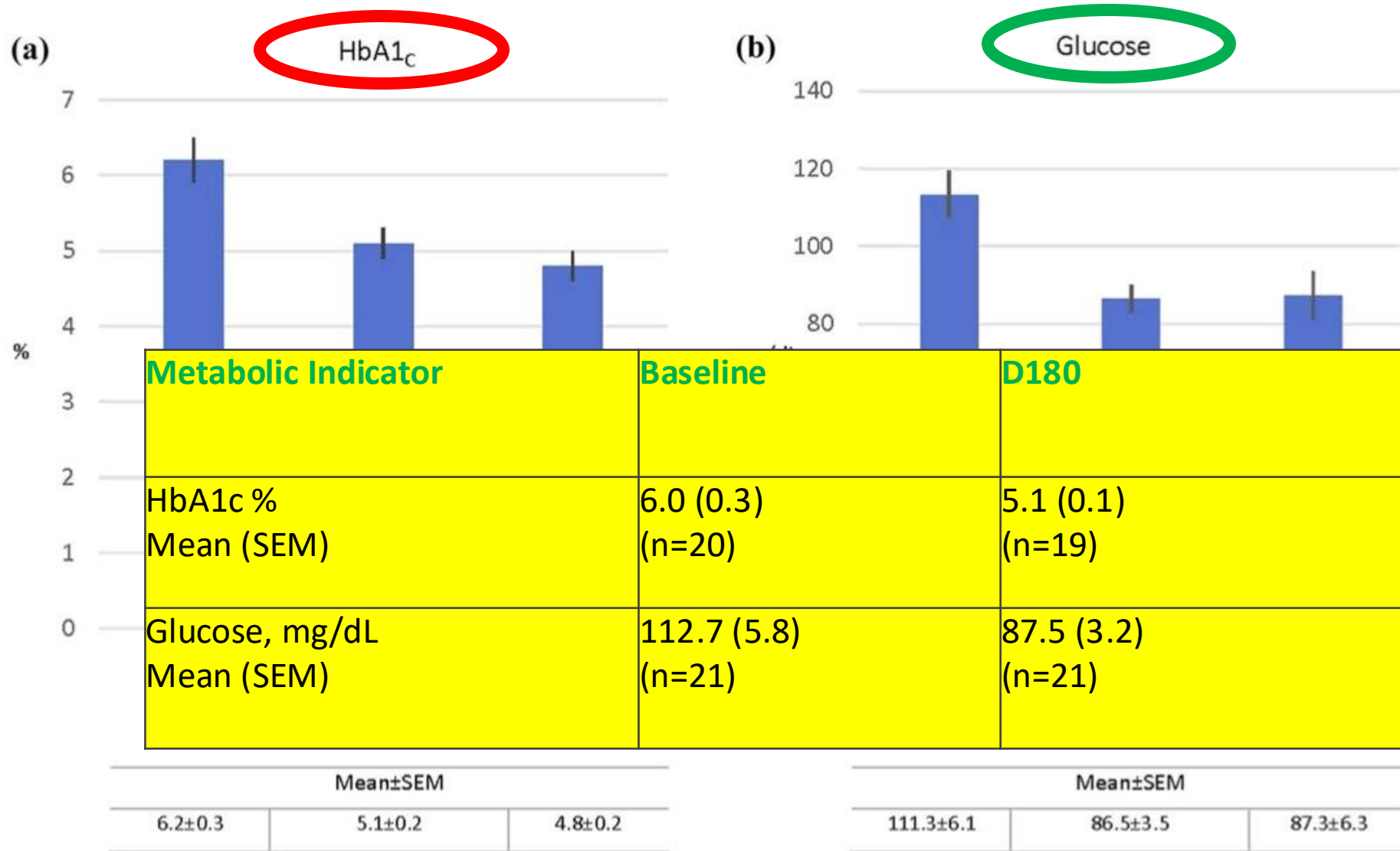


Fig. 6 Mean changes following side-to-side Magnet System duodeno-ileostomy with sleeve gastrectomy in **(a)** HbA1_c (%): reduction at 6 months, $1.1 \pm 0.4\%$ (n=19) and at 12 months, $2.0 \pm 1.1\%$ (n=4);

and in **(b)** blood glucose (mg/dL), reduction at 6 months, $24.8 \pm 6.6\%$ (n=21) and at 12 months, $53.8 \pm 6.3\%$ (n=4)

*Side-to-side magnetic duodeno-ileostomy in
adults with severe obesity with or without type
2 diabetes: early outcomes with prior or
concurrent sleeve gastrectomy*

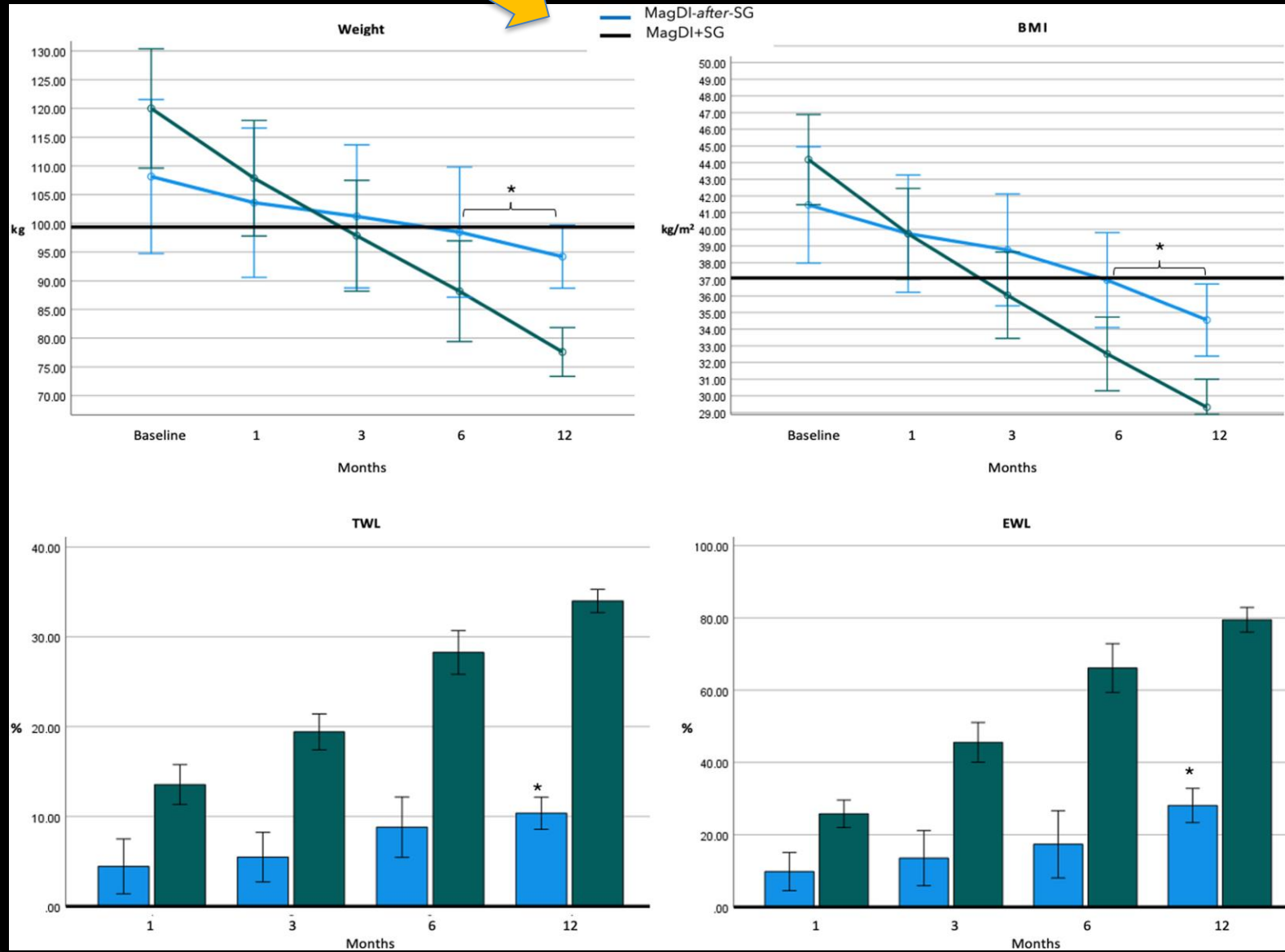
*Michel Gagner, M.D., Lamees Almutlaq, M.D., Guy-Bernard Cadiere, M.D.,
Ph.D., Antonio J. Torres, M.D., Ph.D., Andres Sanchez-Pernaute, M.D.,
Ph.D., Jane N. Buchwald, B.A., David Abuladze, M.D.*

Surgery for Obesity and Related Diseases
Volume 20 Issue 4 Pages 341-352 (April 2024)

DOI: 10.1016/j.soard.2023.10.018



Fig. 4



Original Article

Sleeve gastrectomy with duodenoileal b
feasibility and safety at 1-year follow-up

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Raoul Mutejanya^a, Marc van Gossum^a, Benjamin C
Michel Gagner^c

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^b NVS Consulting, Brussels, Belgium

^c Department of Surgery, Westmount Square Surgical Center, Westmount, Quebec, Canada

G.-B. Cadière et al.

Journal of Gastrointestinal Surgery 28 (2024) 640–650

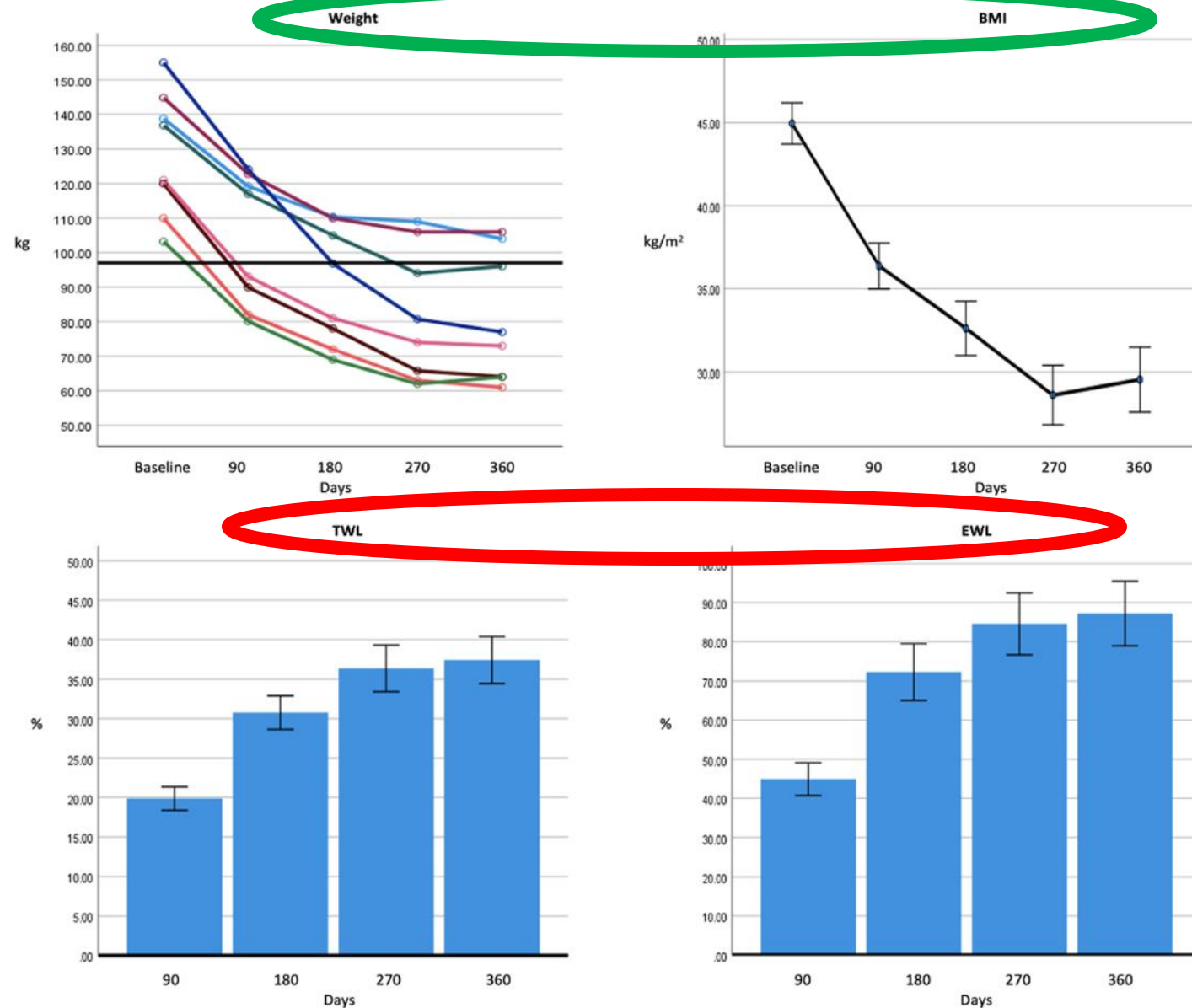


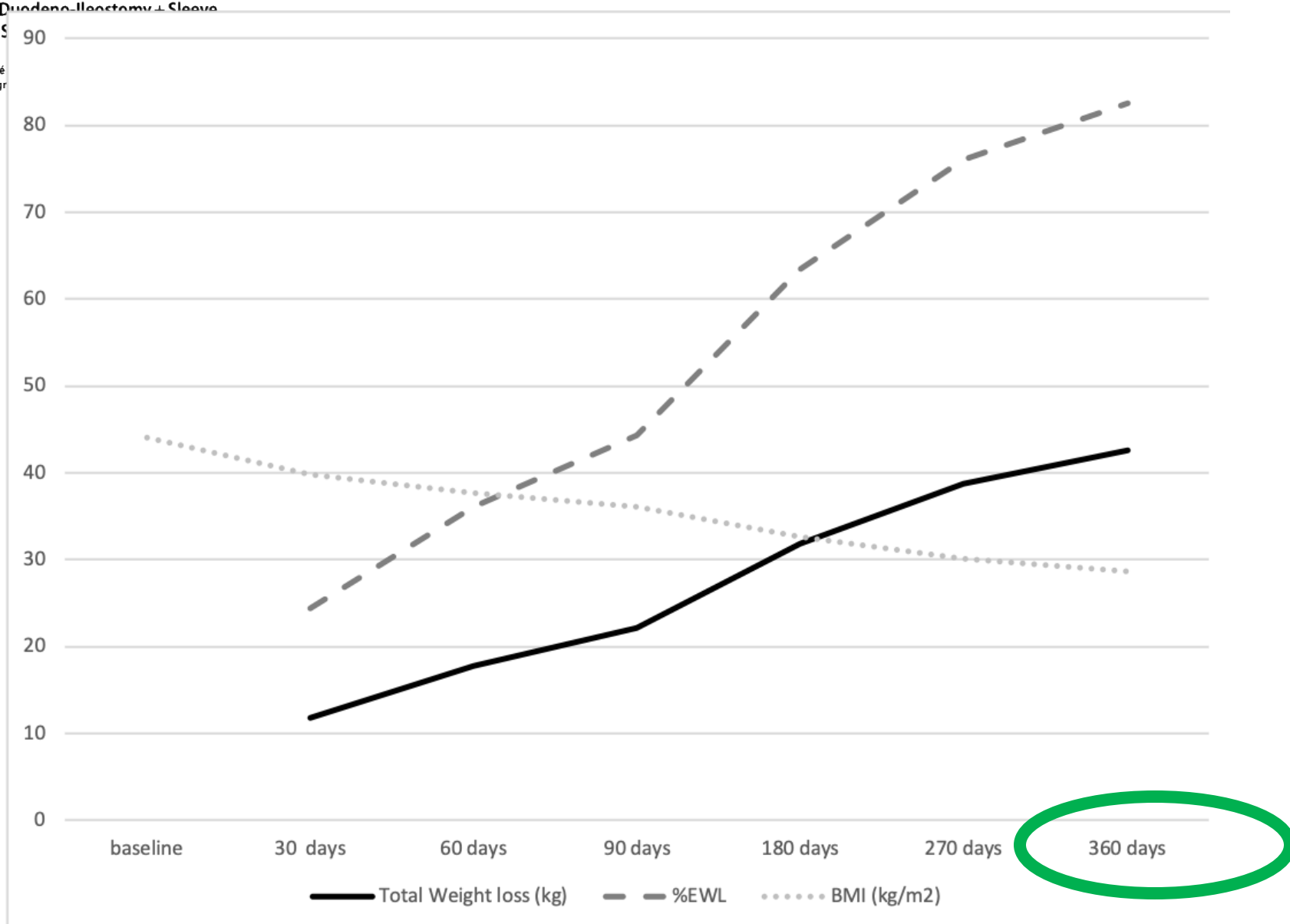
Figure 6. Evolution of weight from baseline to 1-year follow-up for patients with complete data (8 of 10) after side-to-side magnet anastomosis system duodenoileostomy with sleeve gastrectomy in absolute weight (kg), BMI (kg/m²), %TWL, and %EWL. %EWL, excess weight loss; %TWL, total weight loss; BMI, body mass index.



Spanish Experience with Latero-Lateral Duodeno-Ileostomy + Sleeve Gastrectomy with Magnet Anastomosis

Jana Dziakova^{1,2,3} · Antonio Torres^{1,2,3} · Maja Odovic¹ · José
Andrea Castillo¹ · Andrés Sánchez-Pernaute^{1,2,3} · Michel Gagr

Figure 3: Mean changes in body mass index (BMI, kg/m²); total weight loss (%TWL);
and in excess weight loss (%EWL)

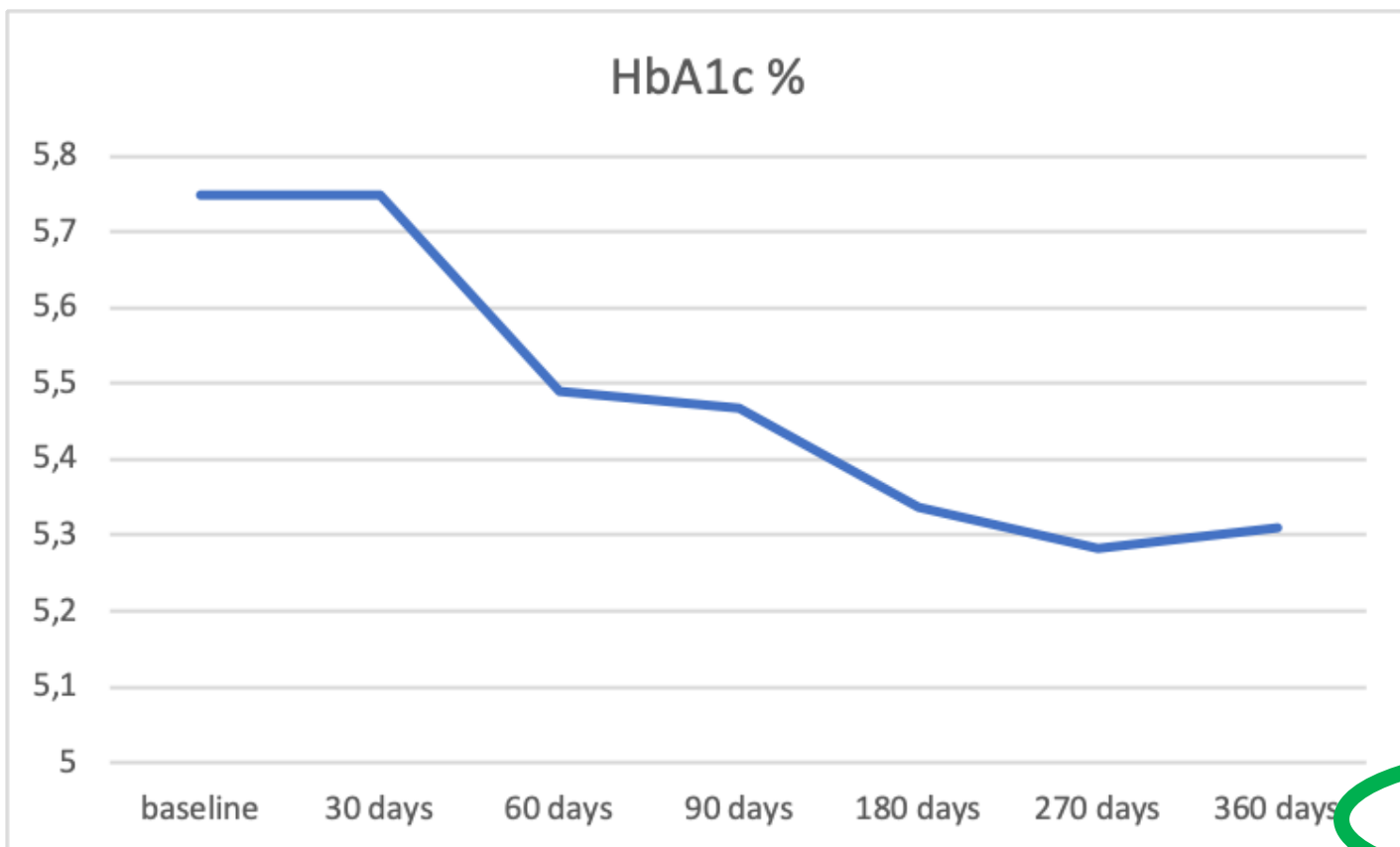




Spanish Experience with Latero-Lateral Duodeno-Ileostomy + Sleeve Gastrectomy with Magnet Anastomosis System

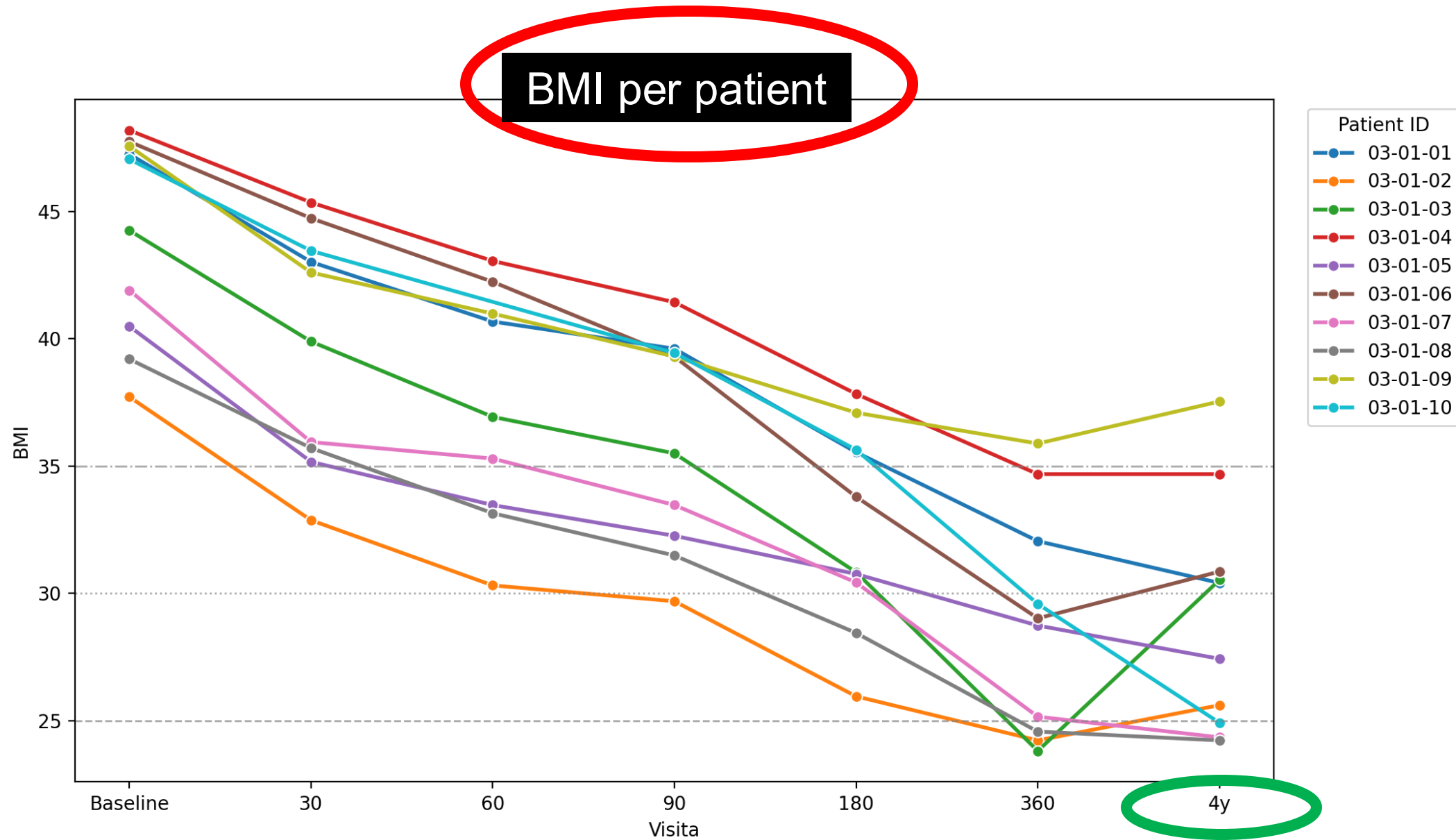
Jana Dzlakova^{1,2,3} · Antonio Torres^{1,2,3} · Maja Odovic¹ · José Miguel Esteban⁴ · Manuel Vázquez-Romero⁴ · Andrea Castillo¹ · Andrés Sánchez-Pernaute^{1,2,3} · Michel Gagner^{5,6}

Figure 4: Mean changes of HbA1c

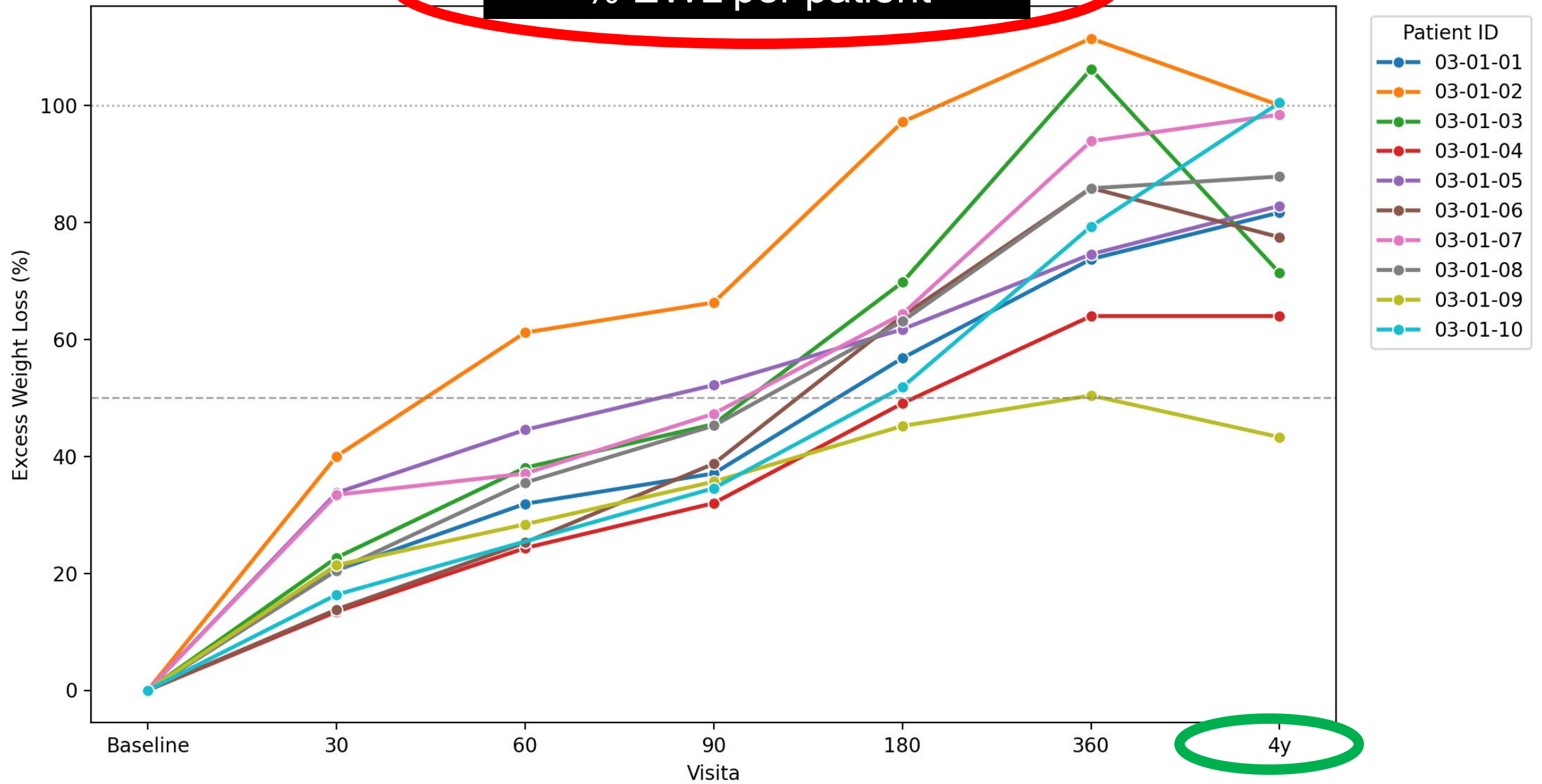


4 years:
5.3



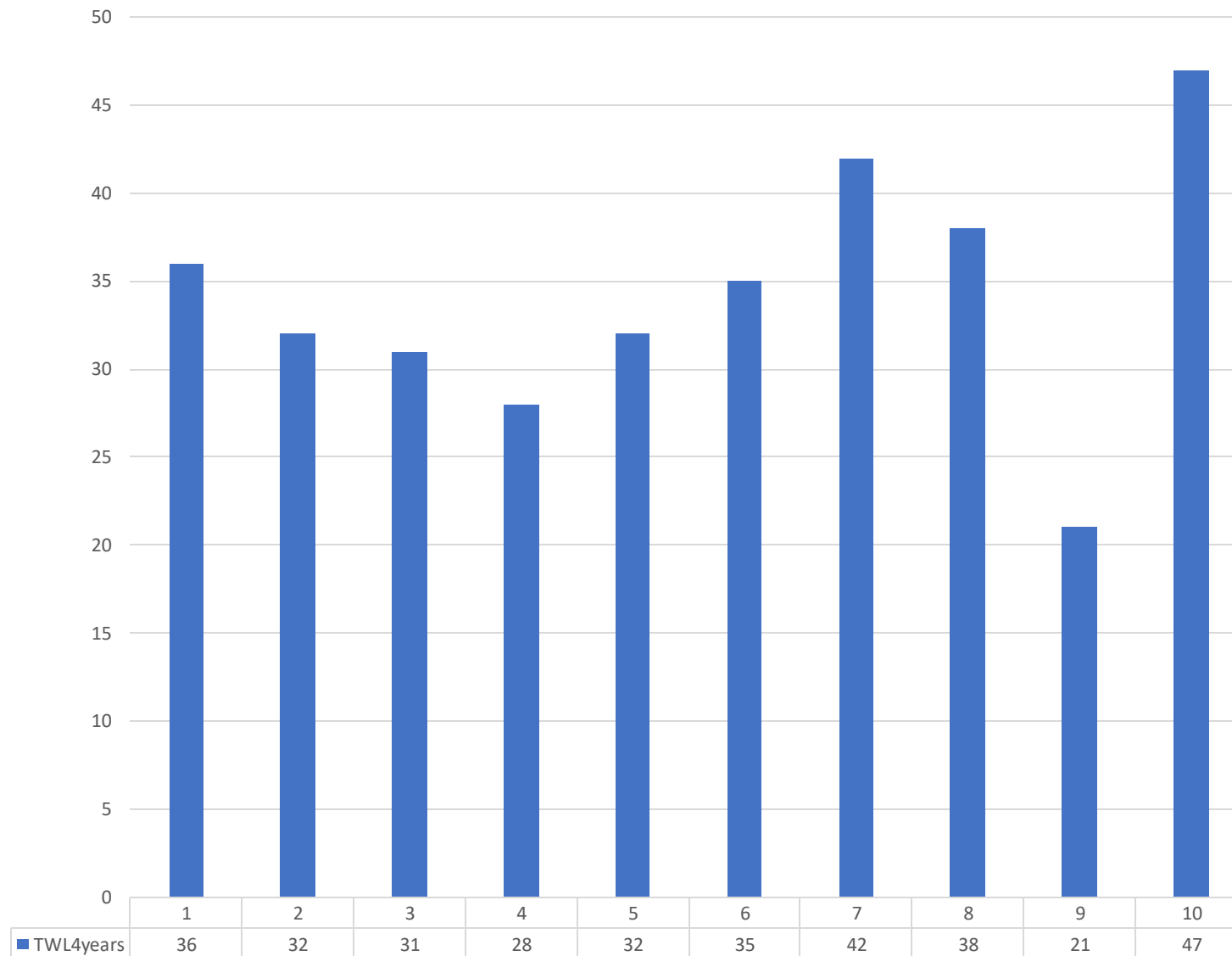


% EWL per patient

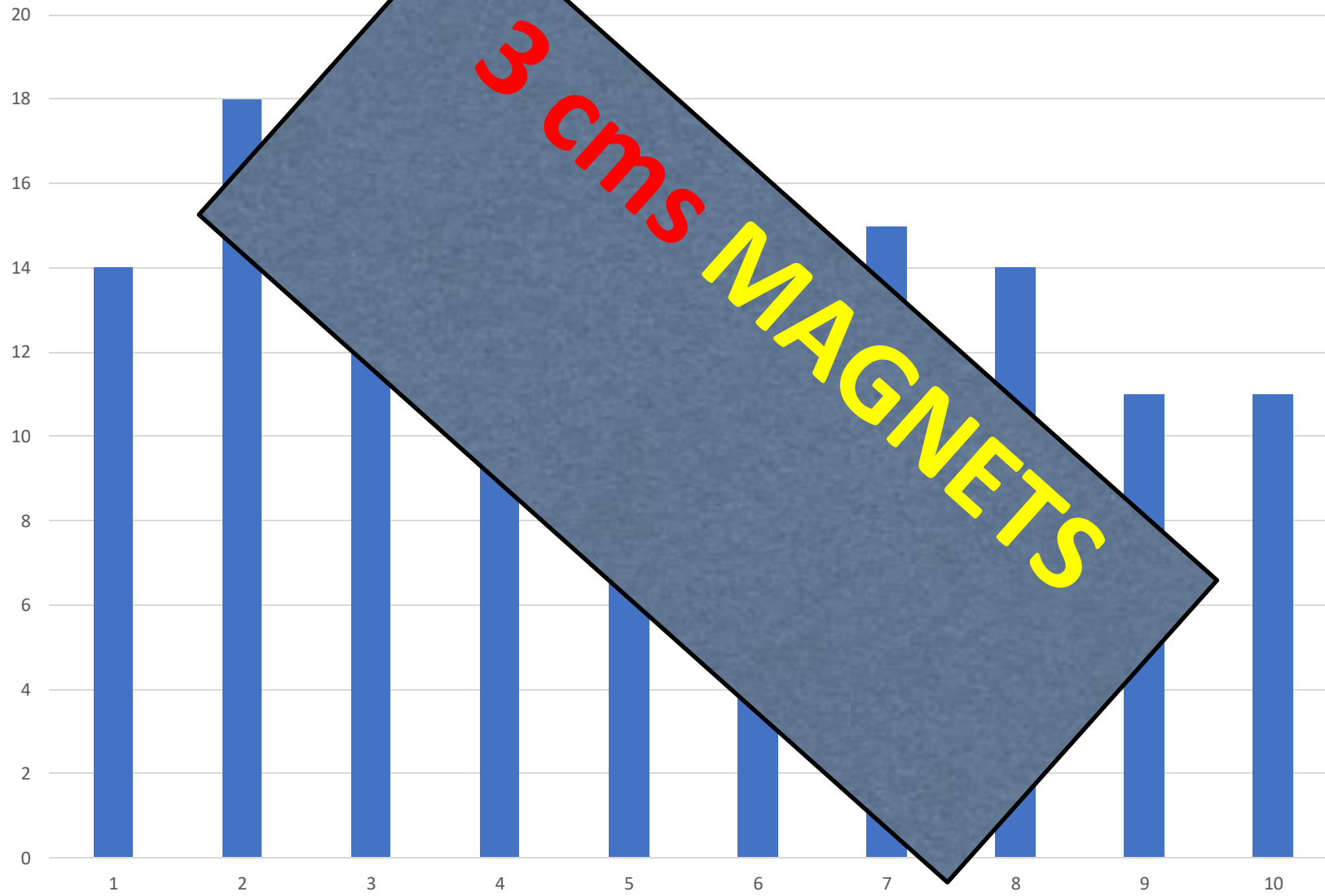


PACIENTE	EDAD CIRUGIA	PESO INICIAL	TALLA	IMC INICIAL	EP	PESO 3 AÑOS	IMC 3 AÑOS	TWL 3 AÑOS	TWL 4 AÑOS
MCRP	51	104.5	1.6	42.5	42.9	76.0	30.8	27.3	28
ARSR	55	109.0	1.7	36.8	35.0	63.7	21.5	41.6	32
FFG	48	144.5	1.8	44.1	62.6	89.0	27.2	38.4	31
MEPA	60	118.0	1.6	49.1	57.9	62.5	26.0	47.0	35
SBB	36	124.0	1.7	40.9	48.3	86.7	28.6	30.1	32
YMSS	33	130.2	1.7	46.1	59.6	94.0	33.3	27.8	35
MA	50	103.3	1.5	43.6	44.0	57.0	24.0	44.8	36
MJS	54	113.3	1.6	44.3	49.3				38
BFF	55	129.5	1.7	47.6	61.4	101.0	37.1	22.0	21
SRL	45	136.0	1.7	47.1	63.8	70.5	24.4	48.2	47

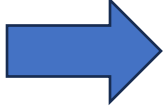
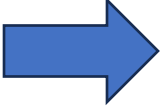
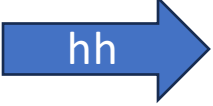
TWL 4years



ANASTOMOSIS DIAMETER

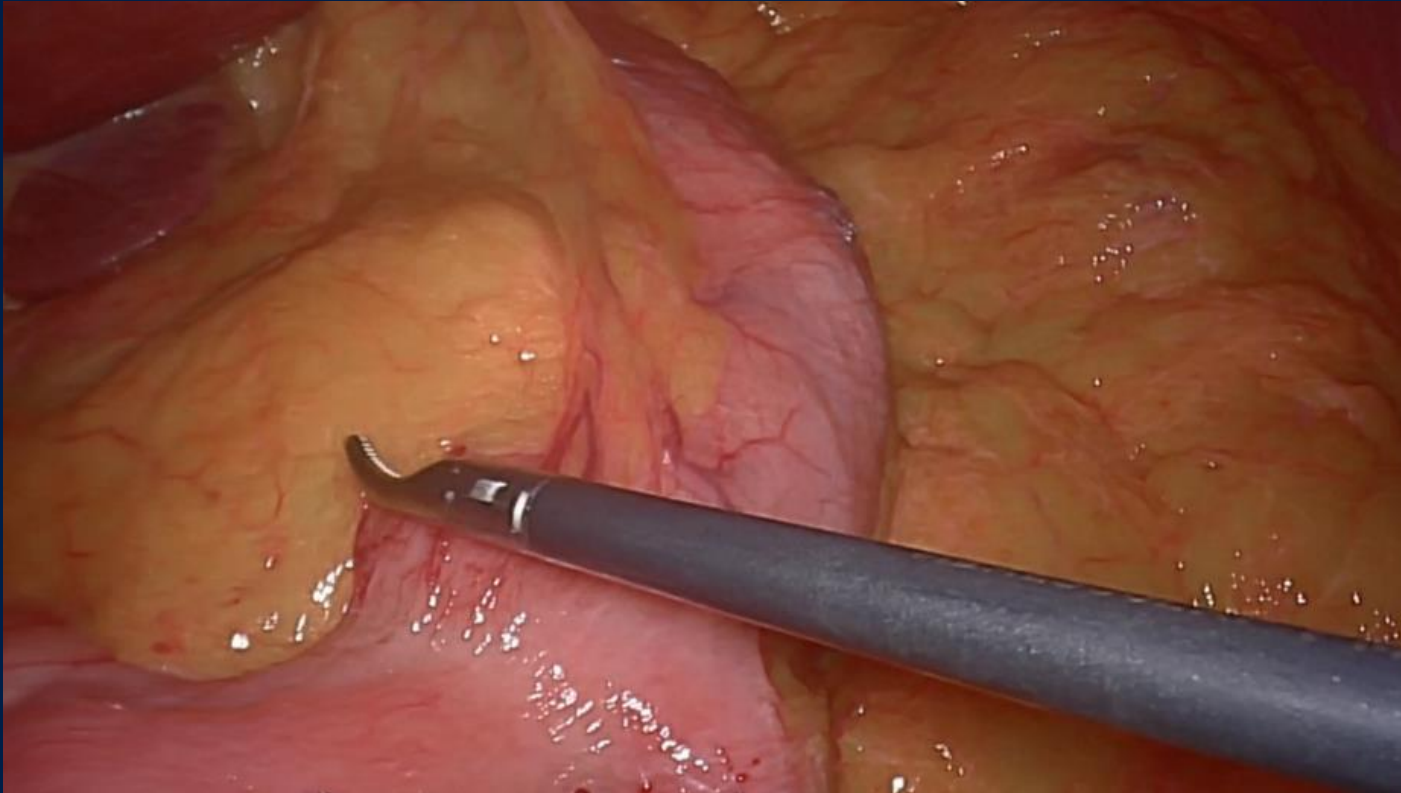


MAGDI: Patients Follow-up

- Early non-programmed MAGDI dilation  Perforation  Sleeve
 RYGB for GERD
- CPRE for main bile duct stones  Cholecystectomy
- Insufficient Weight Loss  SADI-S
- Diarrhea + Nutritional Issues  Sleeve



BARIATRIC PROCEDURE



Type of Procedure

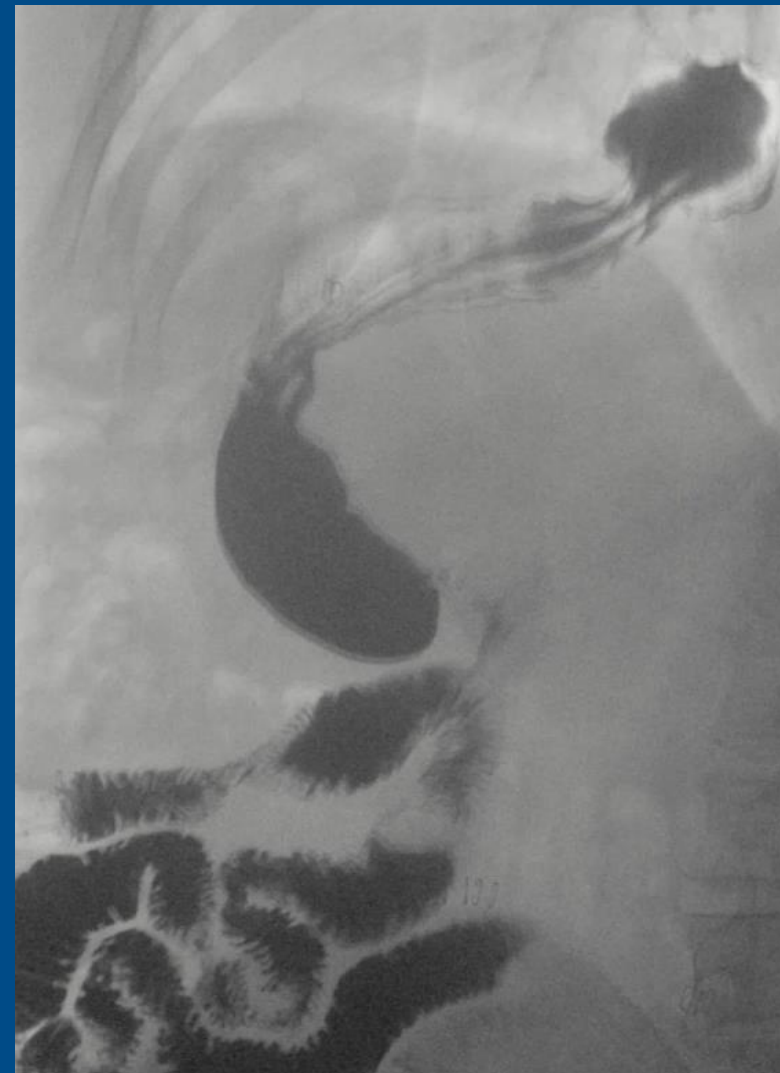
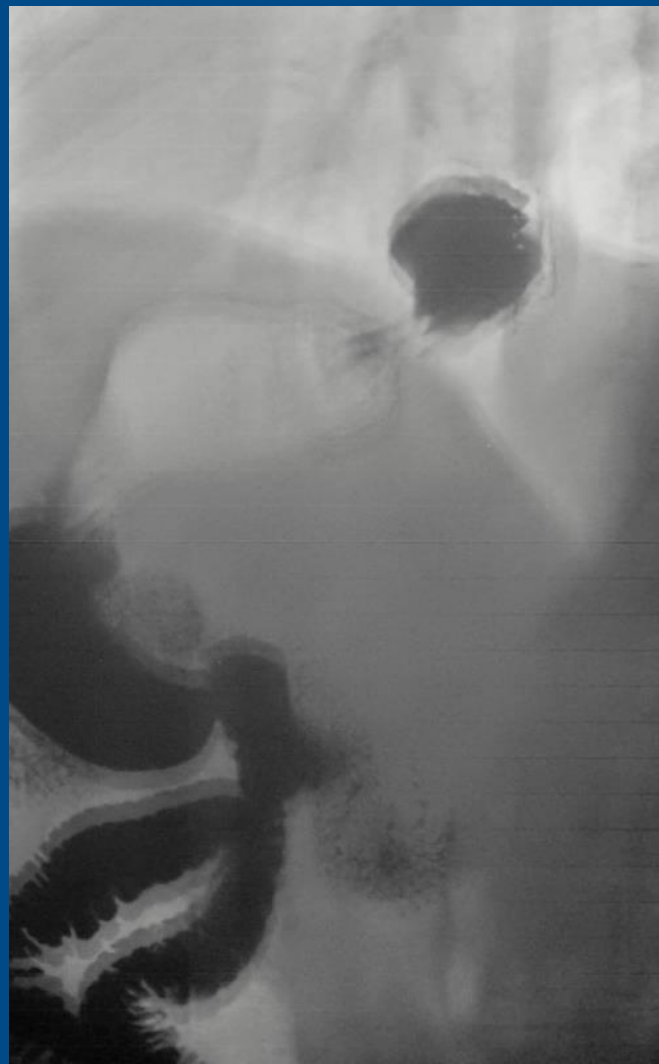
Revisional bariatric surgery
Completion of Duodenal
Diversion.

Important steps

- Revision of sleeve gastrectomy
- Dissection of magnetic duodeno-ileal anastomosis.
- Intraoperative endoscopy
- Dissection of the duodenum.
- Section the duodenum.



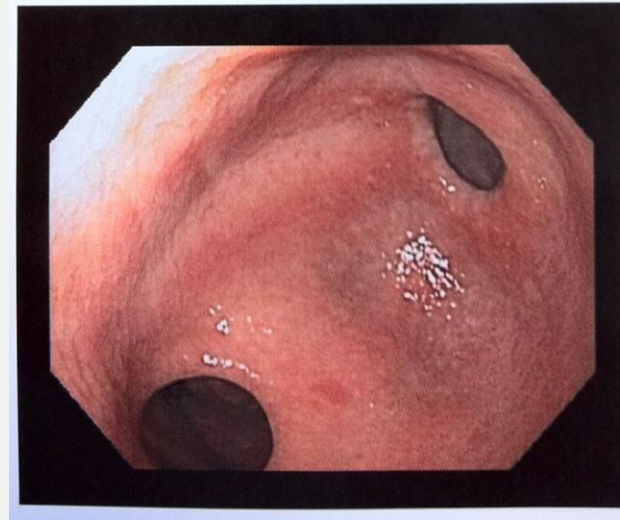
BARIUM SWALLOW EXAMINATIONS



IS DUODENAL BIPARTITION EQUIVALENT TO SADI-S ?

NO

- SADI is predictable, you know what happens with known Common Channel: 250-300-...cm
- In Duodenal Bipartition can be variable, **we don't know** how much pass through GJ



Original Article

Sleeve gastrectomy with duodenoileal
feasibility and safety at 1-year follow-

Guy-Bernard Cadière^a, Mathilde Poras^{a,*}, Marie-
Raoul Mutejanya^a, Marc van Gossum^a, Benjamin
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^a Division of Digestive Surgery, Centre Hospitalier Universitaire Saint-Pierre, Brussels,

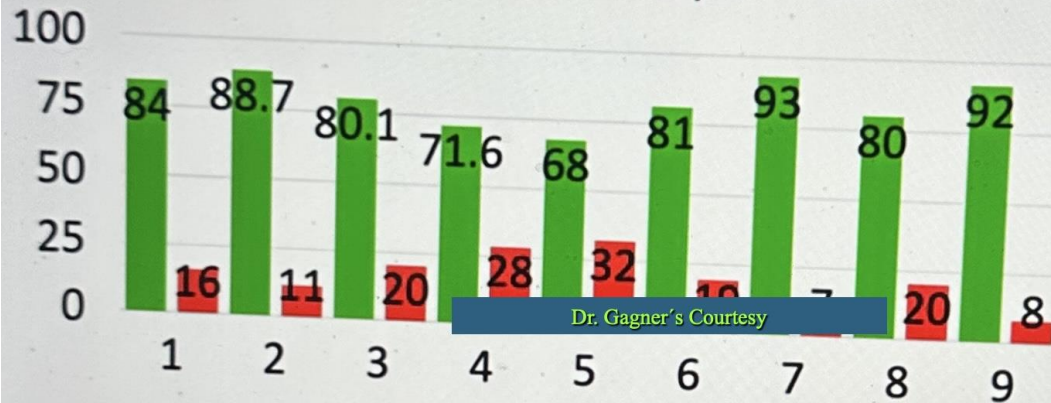
^b NVS Consulting, Brussels, Belgium

^c Department of Surgery, Westmount Square Surgical Center, Westmount, Quebec, Ca

Dr. Gagner's Courtesy

isotopic study :duodenal-ileostomy versus gastro-ileostomy

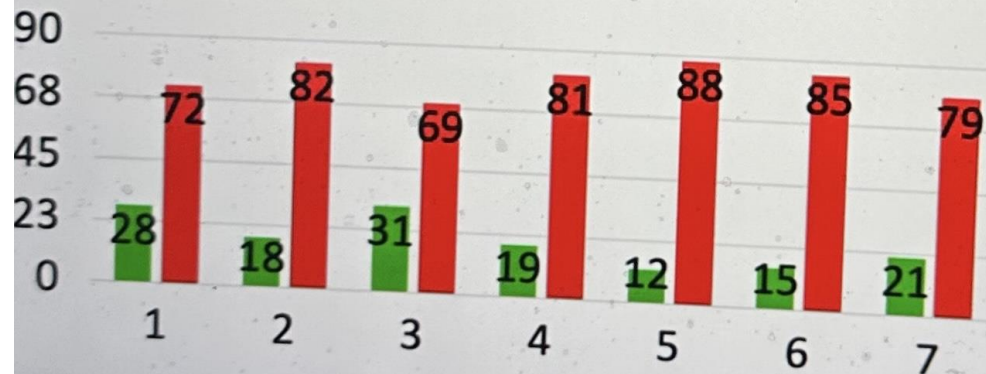
Duodeno-ileal bipartition

Median
19 %

% Ileal Derivation

% Natural route

Gastro-ileal Bipartition (SASI)

Median
81 %

to know the
pic emptying
tition into the
nto the ileum.

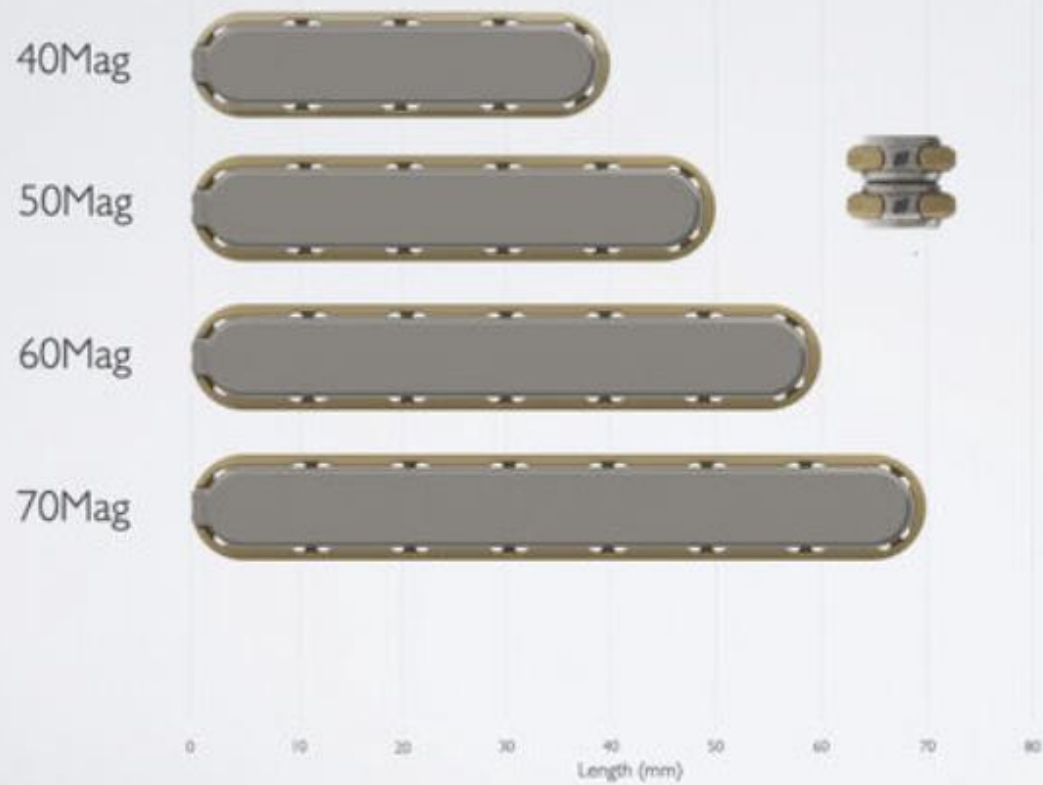
Swallowable Magnets

In Metabolic Surgery
for Diabetes Resolution

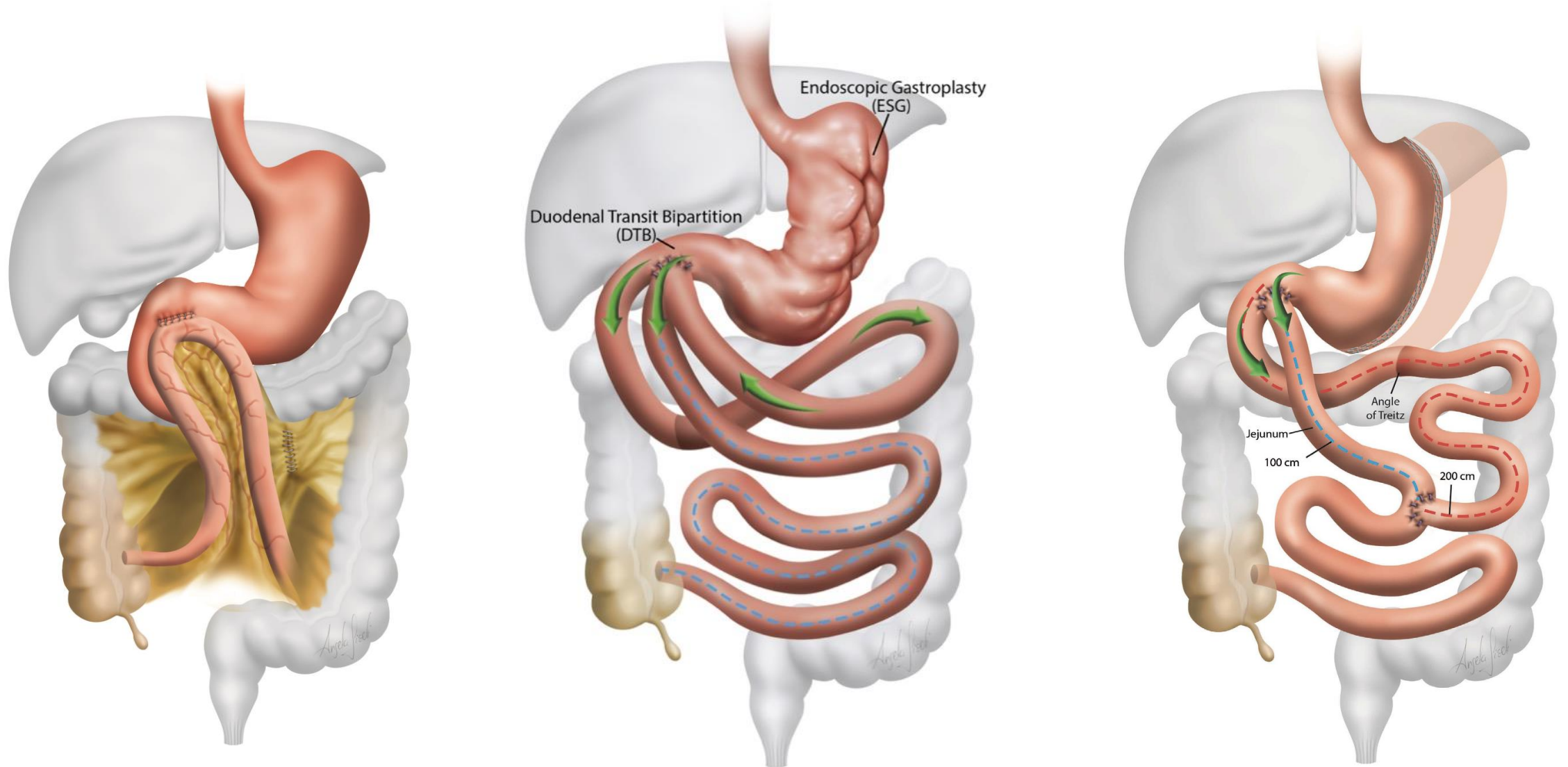
with Dr. Michel Gagner



Magnet Length



Duodenal-Bipartition: New Approaches



XXX IFSO WORLD CONGRESS

"Advancing Multimodal Obesity Care"

24-27 August 2027

ifso2027.org



IFSO
PARIS 2027

See you in

PARIS



Ile

cal

THANK YOU

GRACIAS
ARIGATO
SHUKURIA
JUSPAXAR
DANKSCHEEN
TASHAKKUR ATU
YAQHANYELAY
SUKSAMA
EKHMET
BIYAN
SHUKRIA
TINGKI
MAKETA
MINMONCHAR
BOLZIN
MERCI
GOZAIMASHITA
EFCHARISTO
AGUYJE
FAKAAUE
KOMAPSUMNIDA
MAAKE
LAH
GRAZIE
MEHRBANI
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UNALCHEESH
HUH
YUSPAGARATAM
WABEEJA
MAITEKA
ATTO
ANHA
SPASIBO
DENKAUJA
NENACHALHYA
CHALTU
NUHUN
SNACHALHUYA
SPASSIBO
TAVTAPUCH
MEDAWAGSE
BAIKA
SANCO
MERASTAWHY
GAEJTHO

