

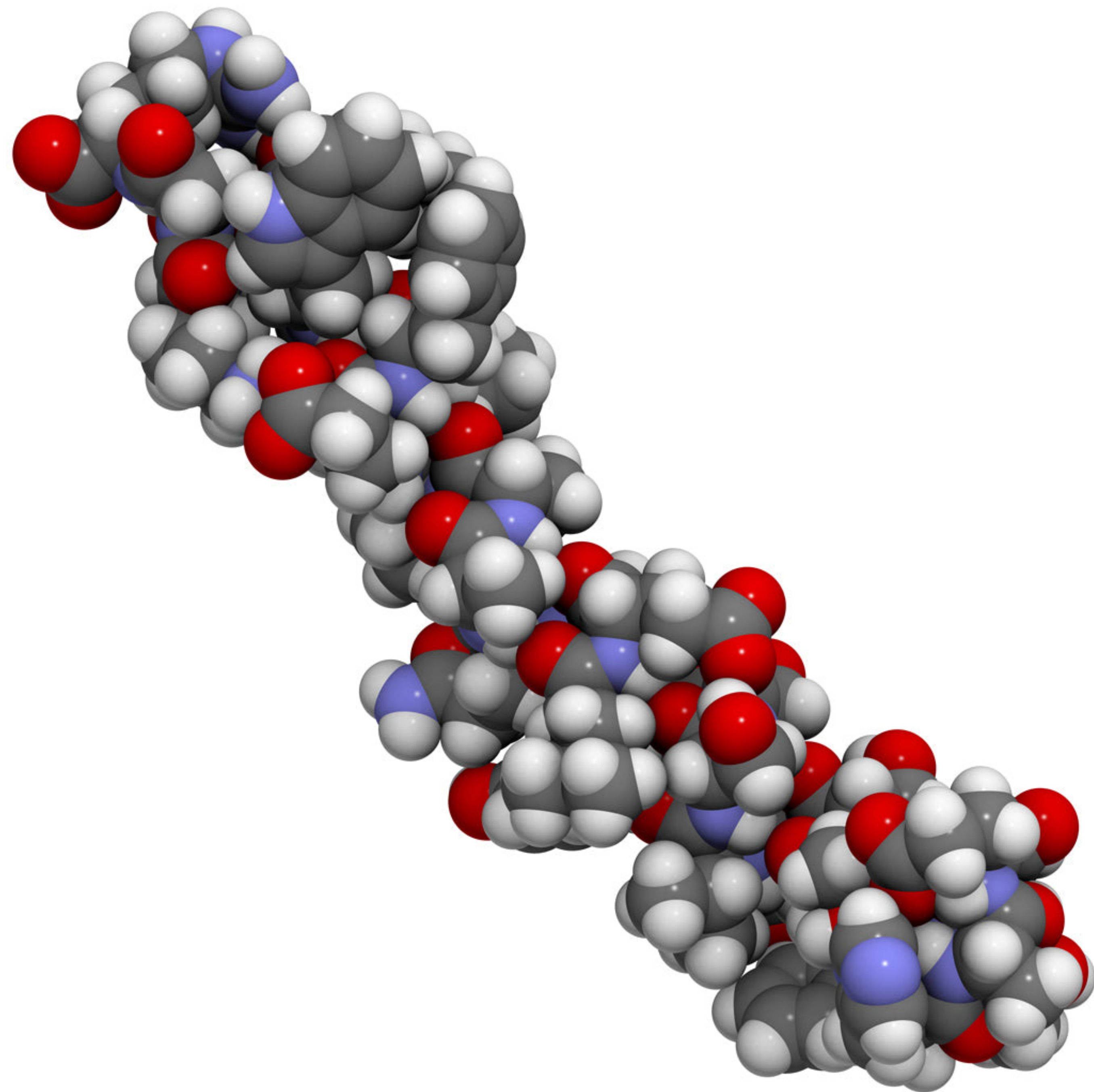


Glp-1 en cirugía bariátrica: antes o después

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Declaración de Conflicto de Interés

- Laboratorio Novo Nordisk: honorarios de speaker, financiamiento actividades académicas, fondos para trabajos de investigación.
- Laboratorio Pasteur: financiamiento actividades académicas.
- Farmacia Cruz Verde: honorarios por creación de contenido para publicidad en obesidad, honorarios por derechos de uso de imagen.
- Farmacia Farmaloop: financiamiento actividades académicas.



La revolución de los GIp-1 en farmacología



2015

Liraglutida: SCALE

- Pérdida media de peso del **8.0% en 56 sem.**
- Un **33%** logró perder al menos **10% de su peso corporal.**

Pi-Sunyer et al., NEJM 2015

2021

Semaglutida: STEP 1

- Pacientes con obesidad (sin diabetes) perdieron en promedio un **14.9% de su peso corporal en 68 sem.**
- Más del **30%** logró perder **más del 20% del peso total.**

Wilding et al., NEJM 2021

2022

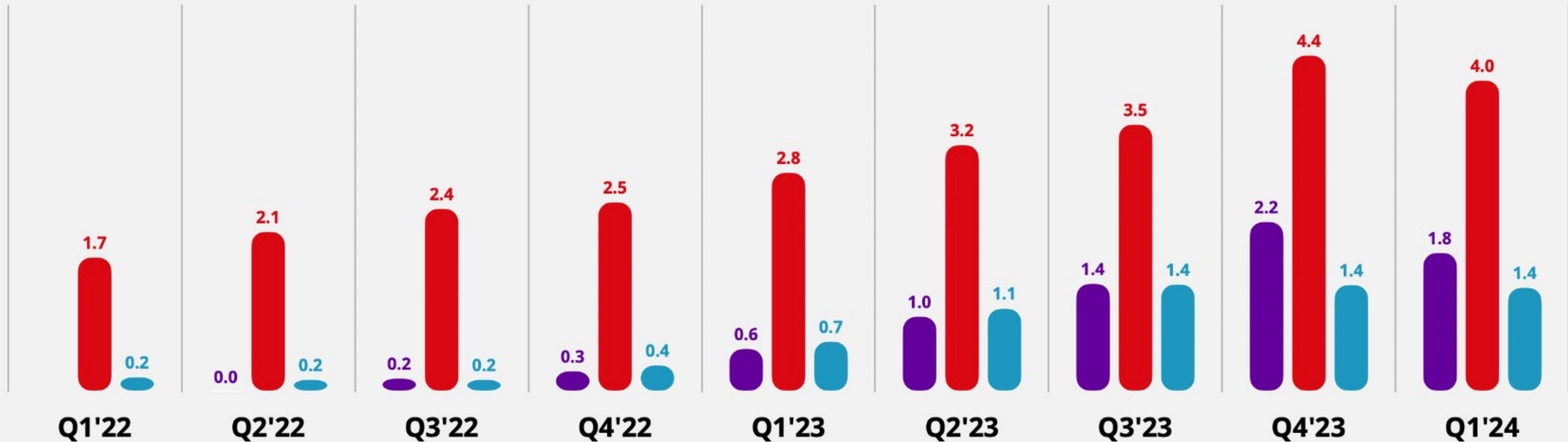
Tirzepatida: SURMOUNT-1

- Participantes sin diabetes perdieron hasta un **22.5% de su peso corporal.**
- Cerca del **50% perdió más del 20% de su peso**, superando a todos los tratamientos anteriores.

Jastreboff et al., NEJM 2022

The Rise of GLP-1

Worldwide sales, in \$ billion

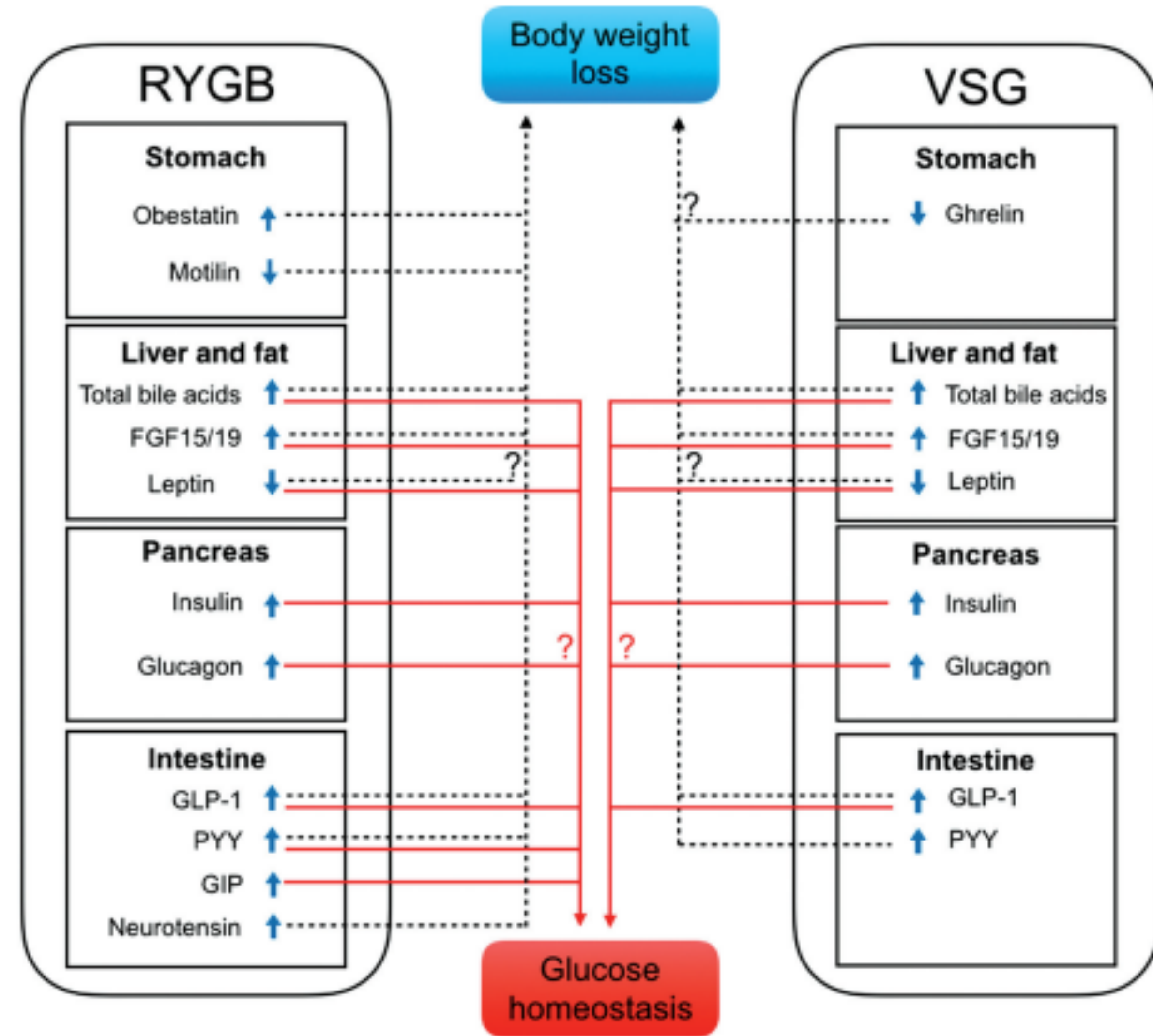


Source: Quarterly results

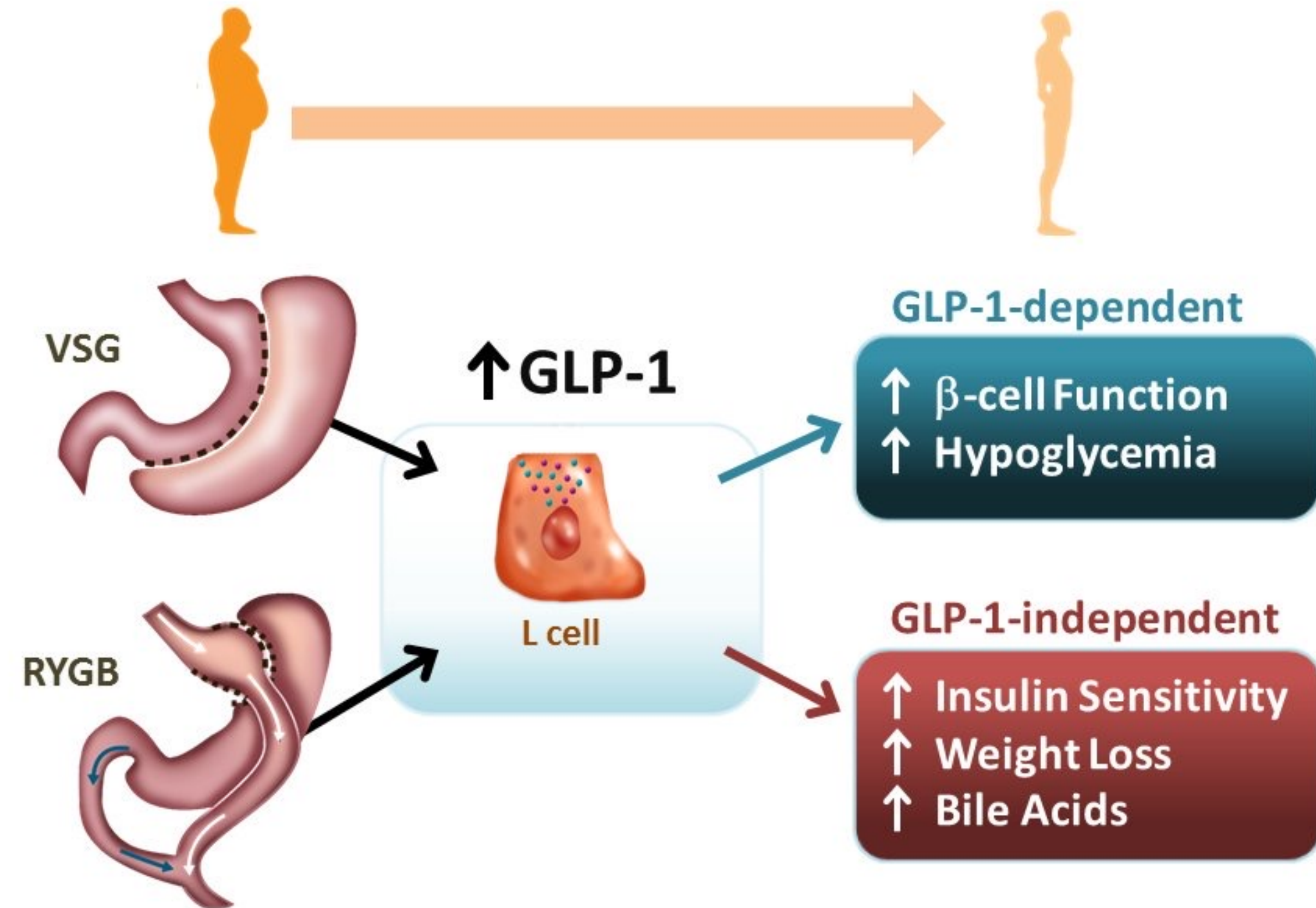
appeconomyinsights.com



La cirugía bariátrica
actúa por **mecanismos fisiológicos**



La cirugía bariátrica
actúa por **mecanismos fisiológicos**



Uso Preoperatorio de Análogos de Glp-1

- **Pérdida de peso significativa antes de la cirugía:** En pacientes con IMC > 50 kg/m², los GLP-1a permitieron una pérdida de peso preoperatoria efectiva, sin retrasar el tiempo hasta la cirugía. Aminian A, et al. Ann Surg. 2022;276(2)e180.
- **Reducción de riesgos en obesidad extrema IMC > 70:** La administración de GLP-1a se asoció con una disminución del riesgo de complicaciones postoperatorias. Aminian A, et al. Surg Obes Relat Dis. 2023;19(2):186.
- **Tendencia en creciente uso:** El uso de agonistas de GLP-1 en el año previo a la cirugía bariátrica se triplicó recientemente, sin evidencia de efectos negativos sobre resultados tempranos ni a largo plazo. Stefanidis D, et al. Obes Surg 2024. PMID: 39810030

> [Obes Surg](#). 2025 Feb;35(2):556-560. doi: 10.1007/s11695-024-07651-1. Epub 2025 Jan 14.

Preoperative Glucagon-Like Peptide-1 Receptor Agonist Utilization and Association with Bariatric Surgery Outcomes

Qais AbuHasan¹, Luke M Funk^{2 3}, Jane L Holl^{4 5}, Claire Draucker⁶, Shaun Grannis⁷,

Results: Of 2169 patients who underwent surgery, 293 (13.5%) utilized GLP1RA preoperatively. The rate of GLP1RA utilization increased threefold from 2018 to 2023. Males were more likely to receive preoperative GLP1RA (20.1% vs, 12.2%, $p < 0.001$). There were no significant differences in social determinants of health or 30-day postoperative outcomes between patients who did and did not use GLP1RA preoperatively. Similarly, there were no significant differences in %TWL at 1 year postoperatively between groups (median 25.5% vs. 27.3%, coefficient, -0.78, 95%CI, -2.26 to 0.70).

Conclusions: Utilization of GLP1RA in the year prior to bariatric surgery has increased threefold. Preoperative GLP1RA use is not associated with worse 30-day outcomes or differences in %TWL at 1 year postoperatively. Further work is needed to evaluate whether GLP1RA dosing and duration of treatment impact postoperative outcomes.

Reganancia de peso: ¿Cambios en las Hormonas de Intestinales?

- Estudio con pacientes que presentan baja de peso exitosa (grupo A) vs aquellos que **reganan peso (grupo B)**.
- Medición de péptidos intestinales: basal, 30, 60, 90 y 120 min posterior a una comida estándar.

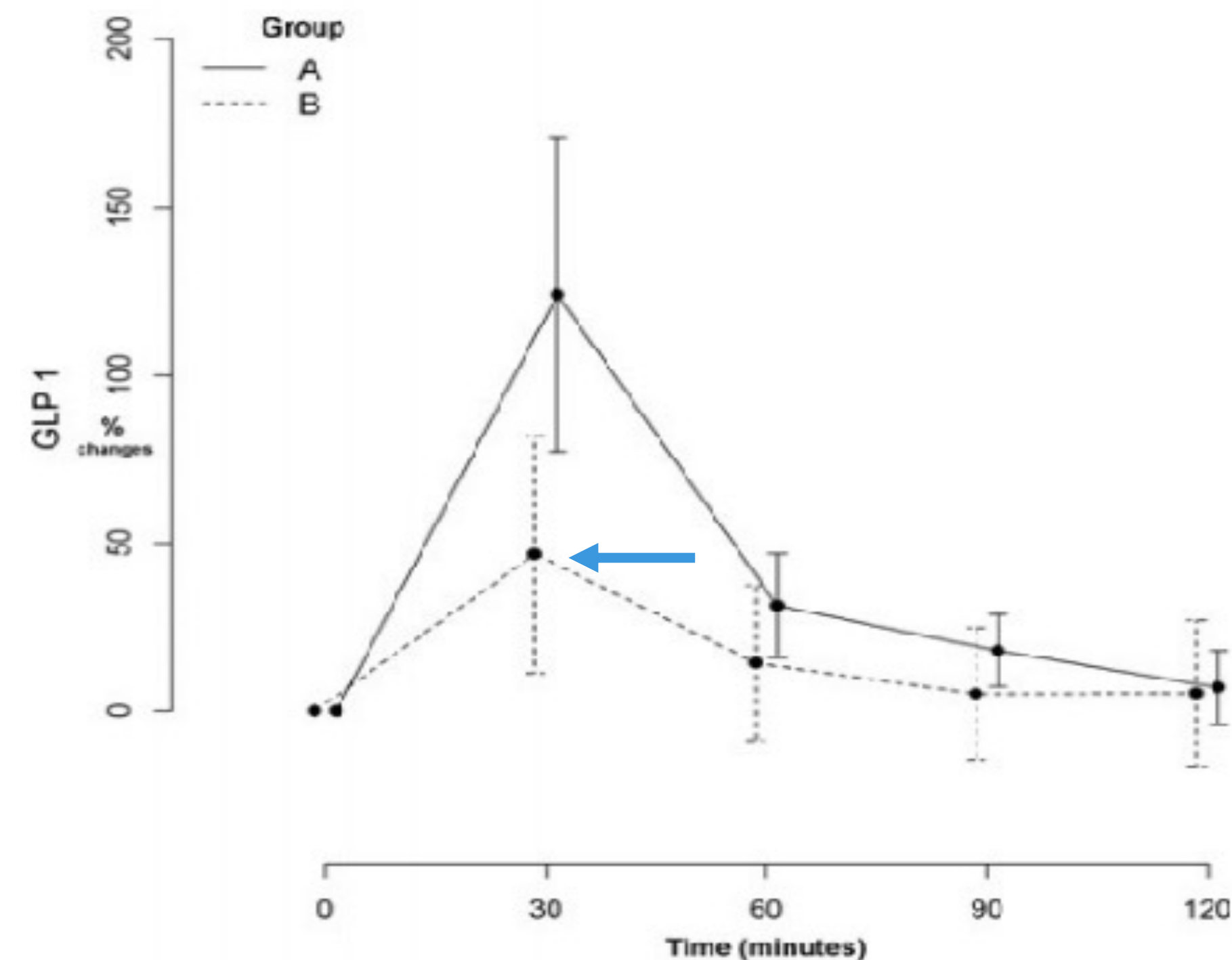


Fig. 4 GLP-1 secretion levels and percentage changes relative to baseline levels after ingestion of a standard meal

- Aquellos que reganan peso (grupo B) presentan niveles más bajos de GLP-1 ($p=0,001$), sin diferencias en los niveles de grelina.

Farmacoterapia posterior a la cirugía bariátrica



Logistic regression analysis with most commonly used medications

Medication	Number of patients (%)	Treatment Odds Ratio (OR)
		≥5%
Topiramate	194 (60.8%)	1.03
Phentermine	121 (37.9%)	1.18
Metformin	123 (38.6)	1.01
Bupropion	75 (23.5%)	.92
Zonisamide	65 (20.4%)	1.15

CI = confidence interval; OR = odds ratio.
Model is adjusted for type of surgery and BMI at baseline.

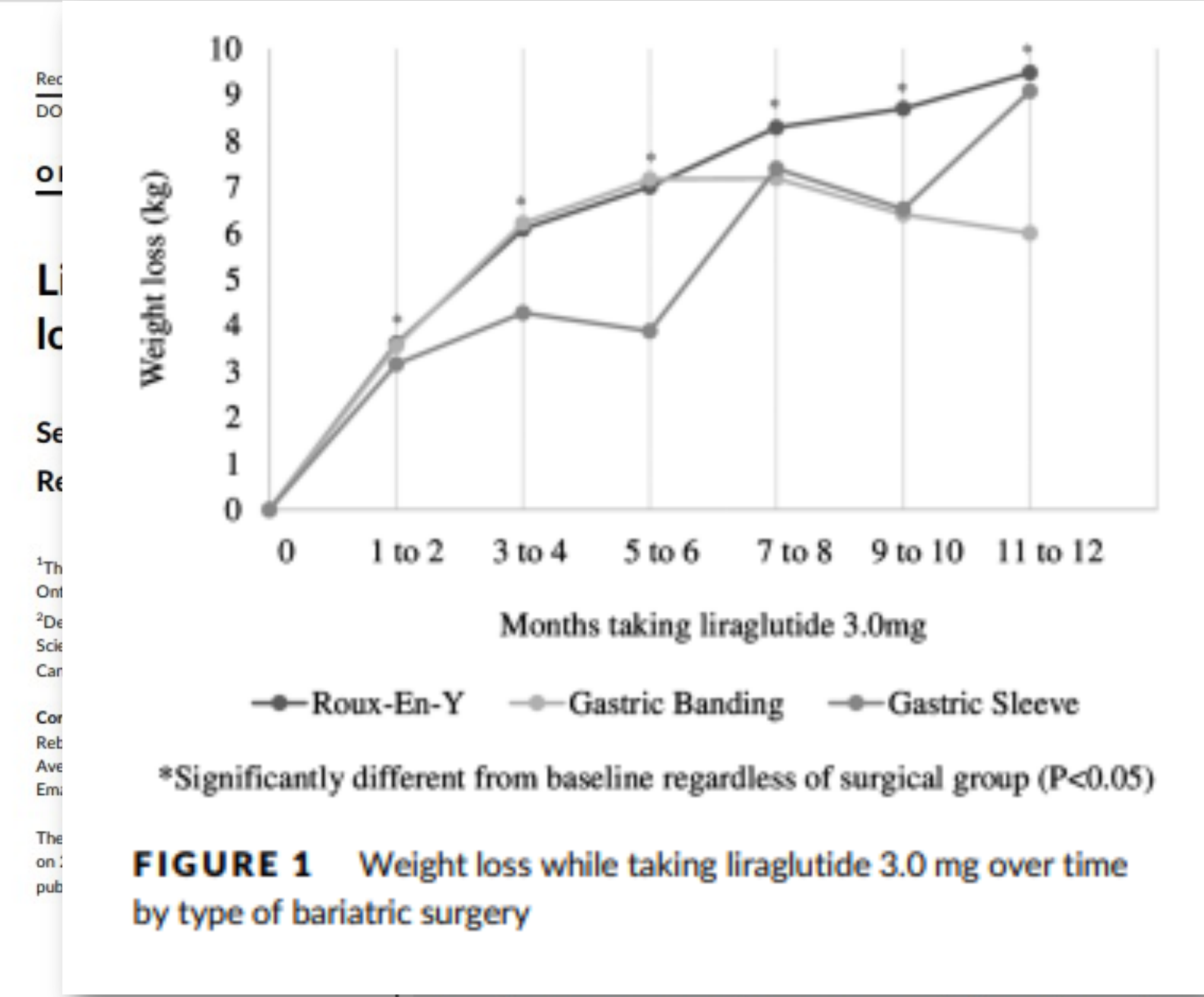
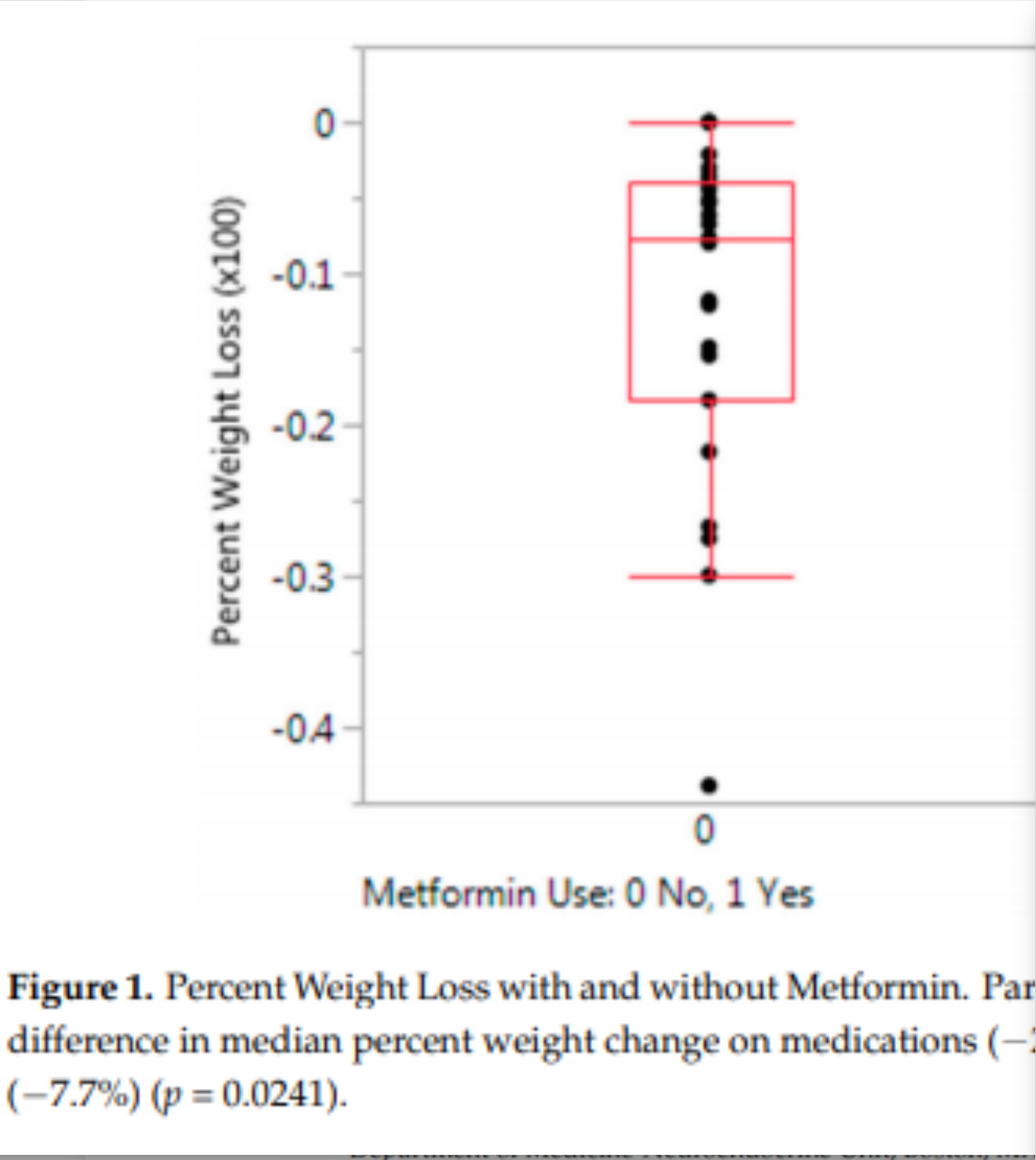
¹Gastrointestinal Unit-Department of Surgery

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³Department of GI Metabolic and Bariatric Surgery

⁴Department of Metabolic and Bariatric Surgery

Received January 10, 2019



Stanford FC, et al. The utility of weight loss medications after bariatric surgery for weight regain or inadequate weight loss: A multi-center study. Surg Obes Relat Dis. 2017;13(3):491-500

Toth AT. Weight Loss Medications in Young Adults after Bariatric Surgery for Weight Regain or Inadequate Weight Loss: A Multi-Center Study. Children (Basel). 2018 Aug 29;5(9):116.

Wharton S. Liraglutide 3.0 mg for the management of insufficient weight loss or excessive weight regain post-bariatric surgery. Clin Obes. 2019 Aug;9(4):e12323.

Análisis retrospectivo (n=20)7
adultos con WR post-
bariátrica
tratados con semaglutida 1,0
mg/sem semana vs.
liraglutida 3,0 mg/d (n = 92).
Promedio 52 años e IMC 40.

Objetivo: evaluar cambios en
el peso a los 12 meses entre
ambos grupos.

Received: 31 October 2022 | Revised: 4 January 2023 | Accepted: 6 January 2023

DOI: 10.1002/oby.23736

ORIGINAL ARTICLE

Clinical Trials and Investigations



Effectiveness of semaglutide versus liraglutide for treating post-metabolic and bariatric surgery weight recurrence

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Sarah E. Messiah^{2,3,5} | Jaime P. Almandoz¹

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Abstract

Objective: The aim of this study was to compare the effectiveness of semaglutide versus liraglutide for treating post-metabolic and bariatric surgery (MBS) weight recurrence.

Methods: A retrospective analysis of 207 adults with post-MBS weight recurrence treated with semaglutide 1.0 mg weekly (n = 115) or liraglutide 3.0 mg daily (n = 92) at an academic center from January 1, 2015, through April 1, 2021, was conducted. The primary end point was percentage body weight change at 12 months of treatment with regimens containing semaglutide or liraglutide.

Results: The mean sample age was 55.2 years; mean BMI was 40.4 kg/m²; 89.9% were female; and 50% completed sleeve gastrectomy, 29% completed Roux-en-Y gastric bypass, and 21% completed adjustable gastric banding. Least-squares mean weight change at 12 months was −12.92% versus −8.77% in the semaglutide and liraglutide groups, respectively (p < 0.001). The adjusted odds ratios were 2.34 (95%

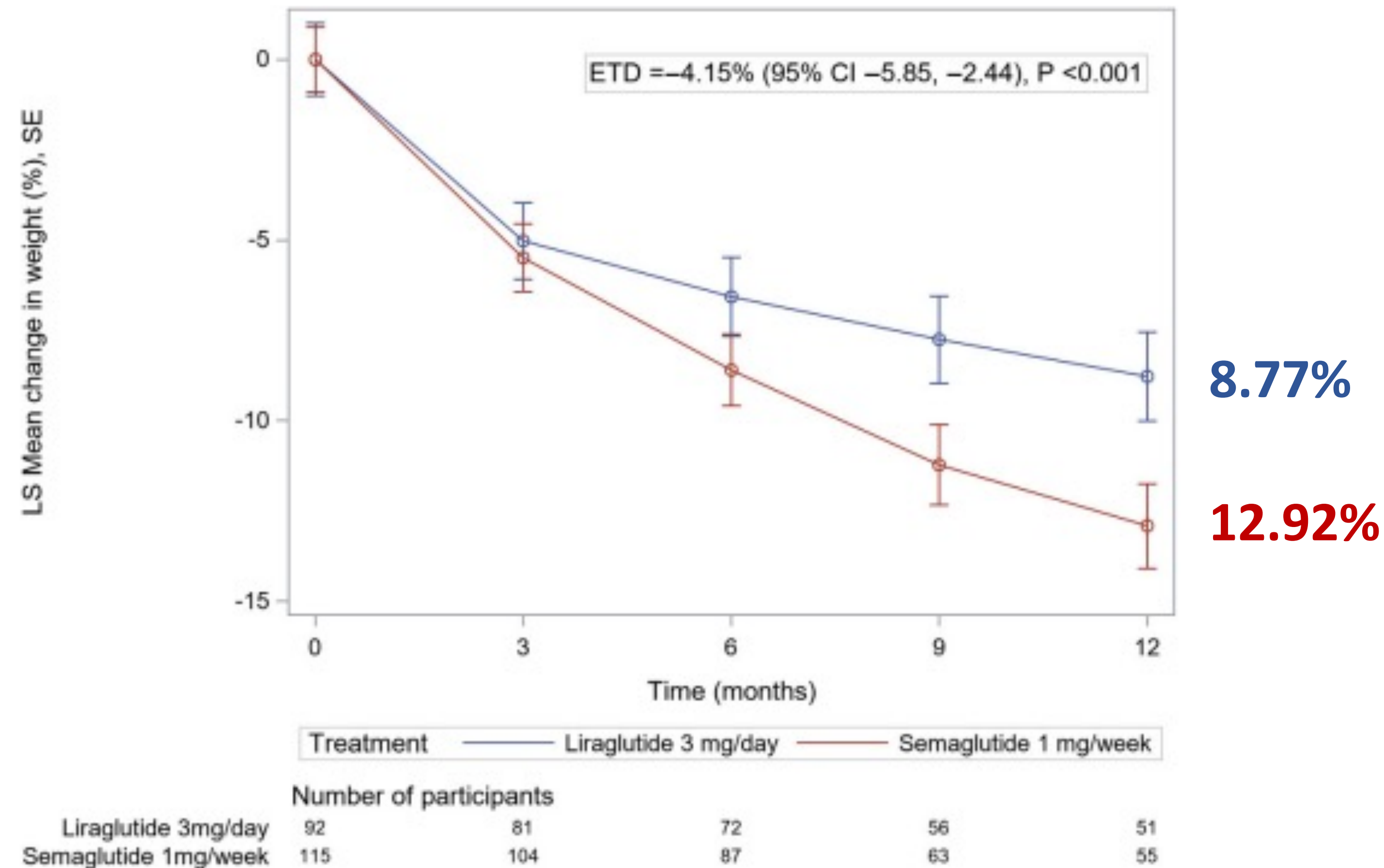


FIGURE 1 Change in weight (percentage) after treatment with semaglutide 1 mg weekly versus liraglutide 3 mg daily in patients with weight recurrence after metabolic and bariatric surgery. ETD, estimated treatment difference; LS, least squares [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

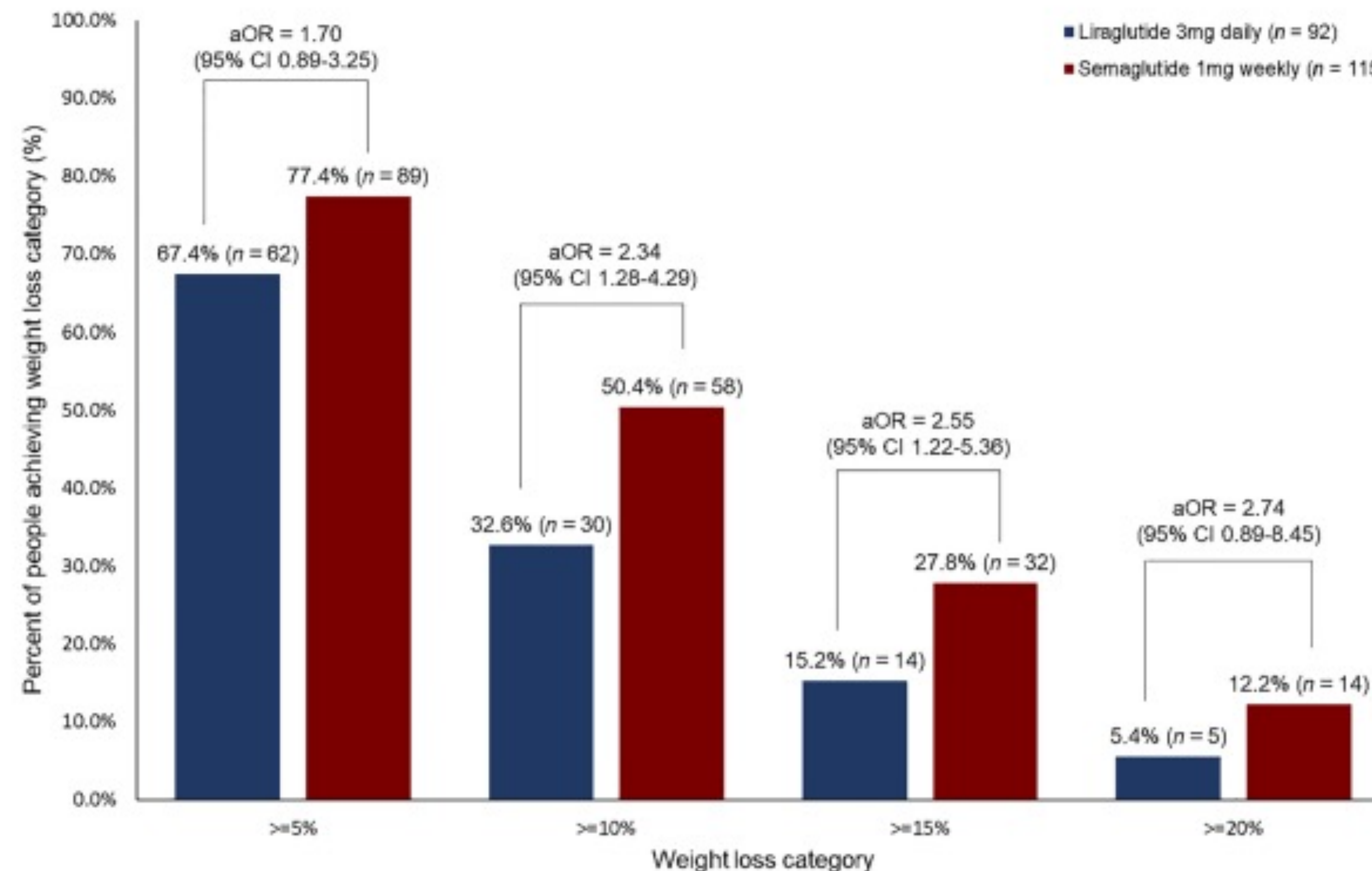


FIGURE 2 Proportion of people and odds ratios of achieving 5%, 10%, 15%, and 20% weight loss at any time over 12 months of treatment with liraglutide 3 mg daily versus semaglutide 1 mg weekly for post-bariatric weight recurrence. aOR, adjusted odds ratio [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.com)]



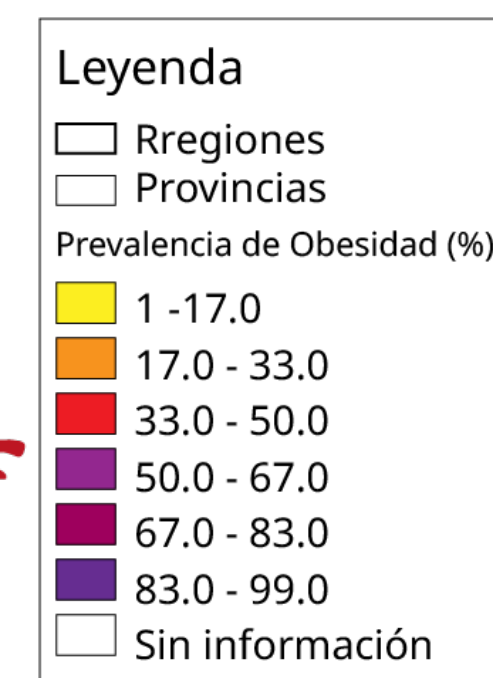
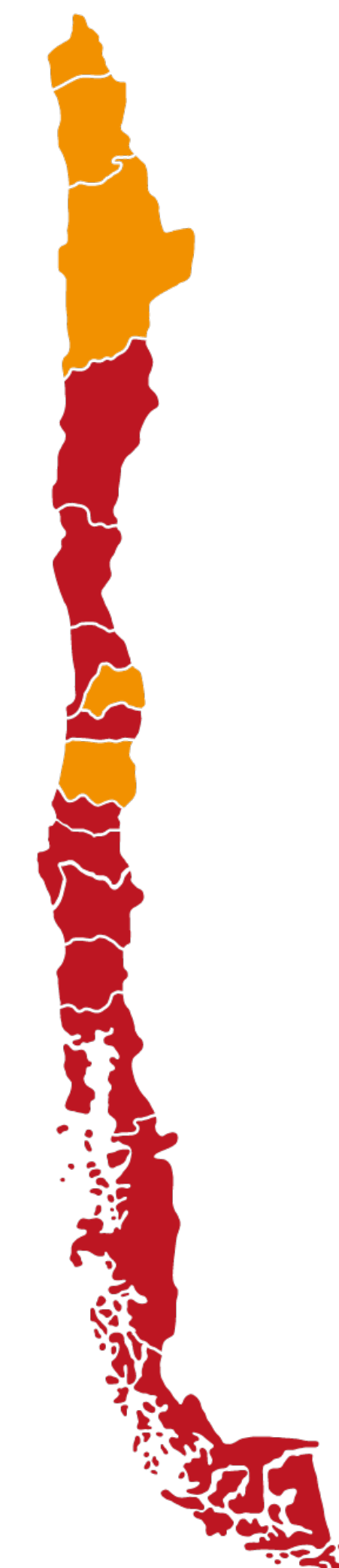
¿Cuál es la realidad Chilena?

En Chile hoy...

Chile lidera en
obesidad adulta en
Sudamérica con 42%

Altas tasas de obesidad
en niños y
adolescentes, el 35%
de los niños y niñas de
primero básico
presenta obesidad

Alto número de
cirugías bariátricas. En
el 2023 se realizaron
26.000 cirugías, de las
cuales 21.000 fueron
Bono PAD Fonasa





Realidad Chilena: Factores asociados con el Aumento de Peso en Pacientes Bariátricos Chilenos

Estudio retrospectivo, N
80 pacientes con cirugía
bariátrica que
consultaron por
reganancia de peso.

REVISTA CHILENA DE NUTRICIÓN



Artículo original

Determinantes de recurrencia de peso en pacientes con cirugía bariátrica

Determinants of weight recurrence in bariatric surgery patients

María Magdalena Farías^{1*} , Adela Boza²

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Fecha de aceptación: 06/12/2024

Fecha de publicación: 31/12/2024

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Resumen

Objetivo: La cirugía bariátrica (CB) tiene numerosos beneficios en las personas con obesidad (PCO) severa, pero hasta el 30% presentará recurrencia de peso (WR). Nuestro objetivo fue reconocer determinantes que permitan identificar a las PCO con mayor riesgo de WR. **Materiales y método:** estudio retrospectivo y observacional con PCO tratadas con CB que efectuaron una consulta a Nutriología por WR en un centro especializado. Se reunieron datos demográficos, clínicos, conductuales y acerca del uso previo de fármacos. **Resultados:** n=80 (78,8% mujeres; mediana de edad: 37 años; índice de



Realidad Chilena: Factores asociados con el Aumento de Peso en Pacientes Bariátricos Chilenos

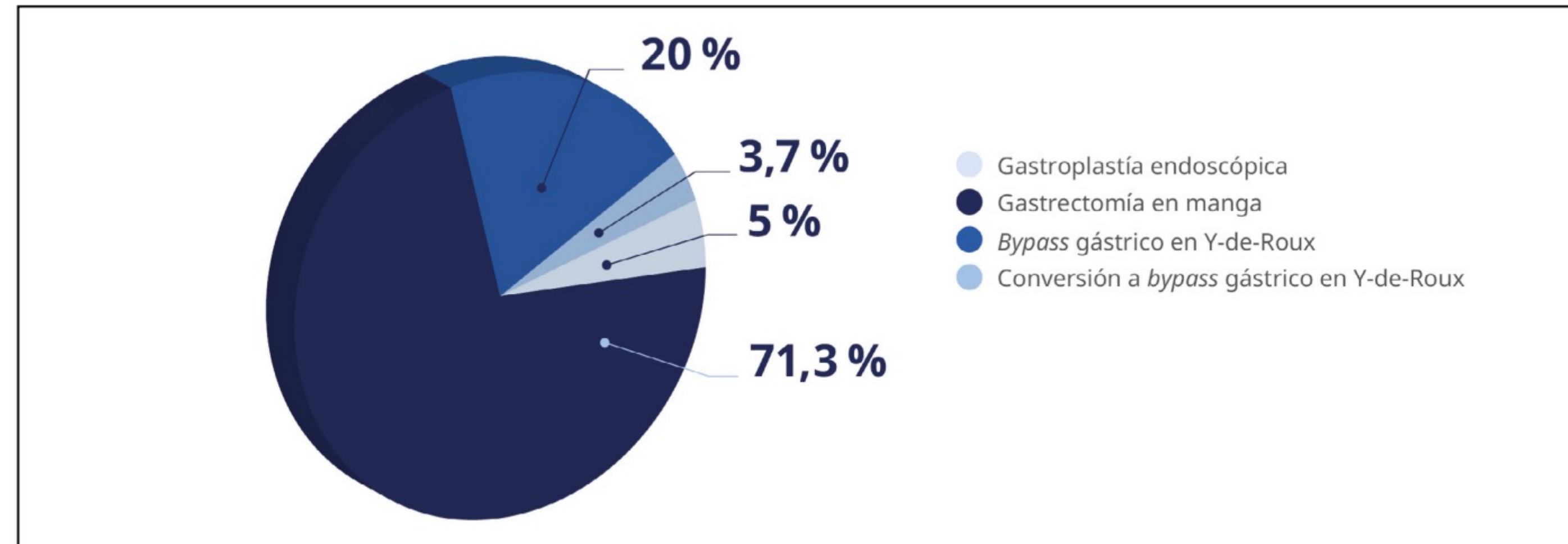


Figura 1. Tipo de CB (N = 80).

REVISTA

Determinantes bariátricos

Determinantes

María Magdalena

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2. Universidad de los

Fecha de recepción: 3

Fecha de aceptación:

Fecha de publicación:

*Correspondencia: M

Resumen

Objetivo: La cirugía bariátrica para el aumento de peso (WR). Nuestro estudio es retrospectivo y observacional. Se analizaron los datos demográficos, clínicos y de resultados.



Realidad Chilena: Factores asociados con el Aumento de Peso en Pacientes Bariátricos Chilenos

Tabla 2. Uso previo de fármacos.

Fármacos	n/N (%)
Fármacos para el descenso de peso (*)	33/79 (41,3 %)
Liraglutide	23/33 (67,7 %)
Fentermina	16/33 (48,5 %)
Otros (dularutide, semaglutide, metformina, lorcaserina)	4/33 (12,1 %)
Psicofármacos (*)	
Antidepresivos	32/80 (40,0 %)
Otros psicofármacos, no antidepresivos	19/80 (23,8 %)
Multivitamínicos	23/80 (28,8 %)
Nutrientes específicos	33/80 (41,2 %)
Vitamina D	20/80 (25,0 %)
Vitamina B ₁₂	12/80 (15,0 %)
Hierro	12/80 (15,0 %)
Biotina	11/80 (13,8 %)

(*) Los porcentajes por grupo terapéutico pueden superar el 100 % porque algunos pacientes usaron más de un fármaco.



Realidad Chilena: Factores asociados con el Aumento de Peso en Pacientes Bariátricos Chilenos

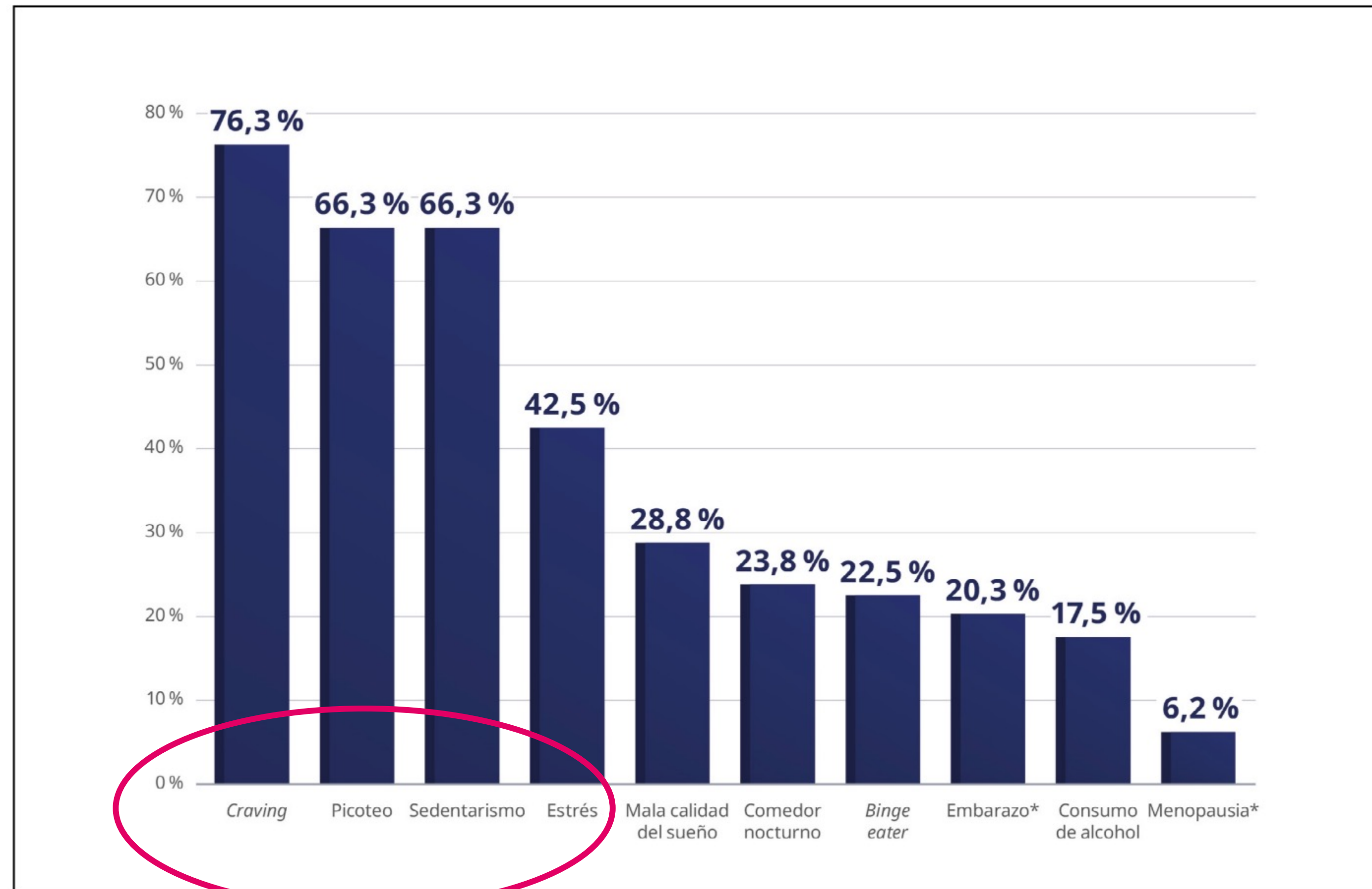


Figura 2. Prevalencia de los factores analizados en la primera consulta con Nutriología (N = 80).
(*) N = 64.



Realidad Chilena: Uso de Liraglutida luego de la Cirugía Bariátrica en pacientes Chilenos

original article

Use of liraglutide after bariatric surgery: a 36-month follow-up in a real-world setting in Chile

María Magdalena Farías¹
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¹ Nuclínic Medical Clinic,
Santiago, Chile

ABSTRACT

Objective: Bariatric surgery has several benefits, including sustainable weight loss and improvement or resolution of metabolic comorbidities. However, despite initially successful weight loss, weight regain occurs during long-term follow-up, and many patients are unable to reach or maintain their target weight goals. Liraglutide is a therapy for obesity aimed at preventing weight regain. **Materials and methods:** This retrospective, observational, single-arm, pre-post study was performed to analyze the relative change in body weight among patients receiving liraglutide after bariatric surgery in a real-world setting in Chile. **Results:** Treatment with liraglutide at a median dose of 1.2 mg was associated with a mean weight loss from baseline to 3, 6, 12, 24, and 36 months of 5%, 7.7%, 7.6%, 5.8%, and 5.1%, respectively. The mean body mass index reduction was 14.8% at 36 months. Dropout rates were consistent with those of usual obesity treatments. Overall, 70% of the patients were receiving other weight-loss drugs. Liraglutide was well tolerated, but cost barriers led to several patients interrupting its use. **Conclusion:** Liraglutide is an effective and safe treatment for weight reduction after bariatric surgery in patients receiving routine clinical care in Chile.

Keywords

Liraglutide; bariatric surgery; obesity; Chile

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INTRODUCTION

Bariatric surgery offers several benefits for treating severe obesity, including sustainable weight loss, improving or resolving metabolic comorbidities, and prolonging life expectancy (1). Despite initially successful weight loss after bariatric surgery, weight regain occurs during long-term follow-up, and 20%-30% of the patients are unable to reach or maintain their

health behavior changes, and to prevent weight regain (level 2a evidence, grade B recommendation) (5). These benefits of liraglutide, with diet and exercise, including induction of further weight loss, have been reported over 56 weeks, and improvements in some risk factors for cardiovascular disease have also been observed (6). Nevertheless, data related to the prevention of weight regain after bariatric surgery with liraglutide remain



Realidad Chilena: Uso de Liraglutida luego de la Cirugía Bariátrica en pacientes Chilenos

Table 2. Liraglutide treatment

Variable	All patients (n = 41)
Initial BMI, kg/m ²	31 (23.9-45.3)
Initial weight, kg	80.8 (61.4-127)
Time from BS to medication, months	72 (12-228)
Liraglutide dose, mg	1.2 (0.6-2.4)
Combination therapy, n (%)	25 (60.9%)

- All values are median (range), excepting when specified

Use of liraglutide after bariatric surgery: a real-world study

María Magdalena Farfán
<https://orcid.org/0000-0003-2415-2220>

ABSTRACT

Objective: Bariatric surgery or resolution of metabolic regain occurs during long-term target weight goals. Liraglutide and methods: This retrospective study analyze the relative change in a real-world setting in patients associated with a mean weight loss of 5.8%, and 5.1%, respectively. Rates were consistent with receiving other weight-loss treatments. Patients interrupting its use after reduction after bariatric surgery.

Keywords

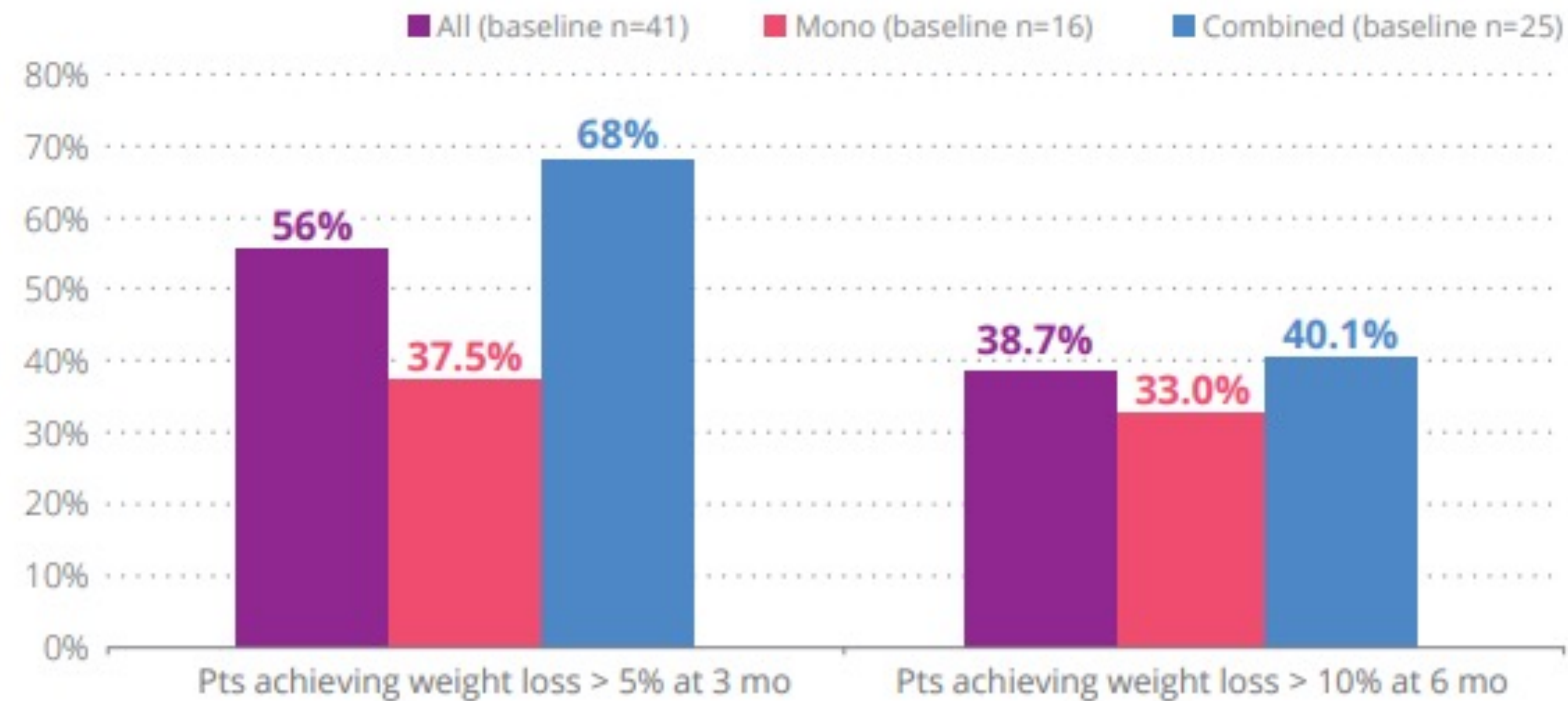
Liraglutide; bariatric surgery; obesity

INTRODUCTION

Bariatric surgery of severe obesity, improving or resolving metabolic and prolonging life. Successful weight loss regain occurs during 30% of the patients are



Figure 2. Patients achieving weight loss according to treatment



Use of liraglutide in bariatric surgery: a real-world study

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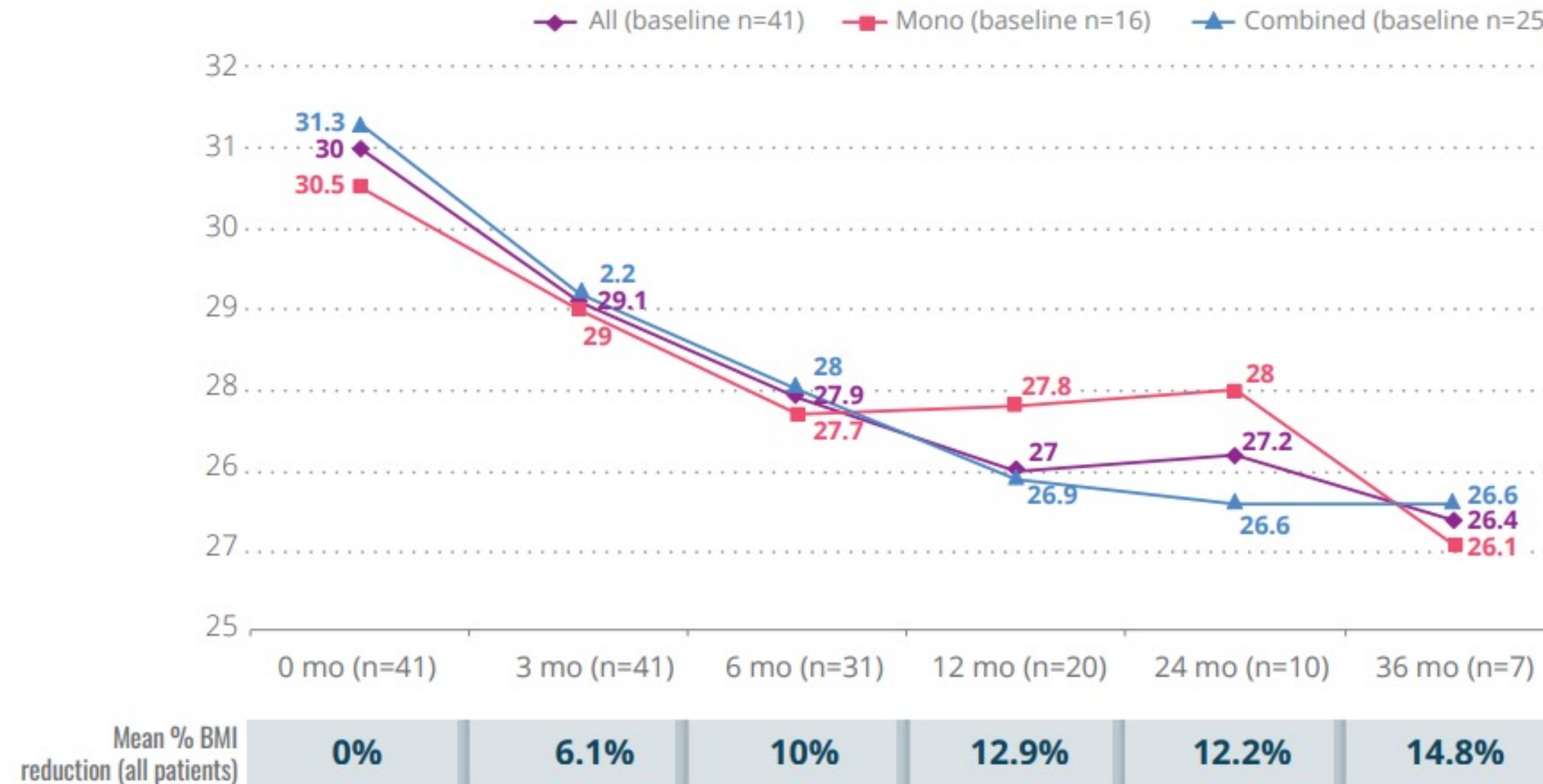
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INTRODUCTION

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Figure 1. Mean BMI variation from baseline during follow-up



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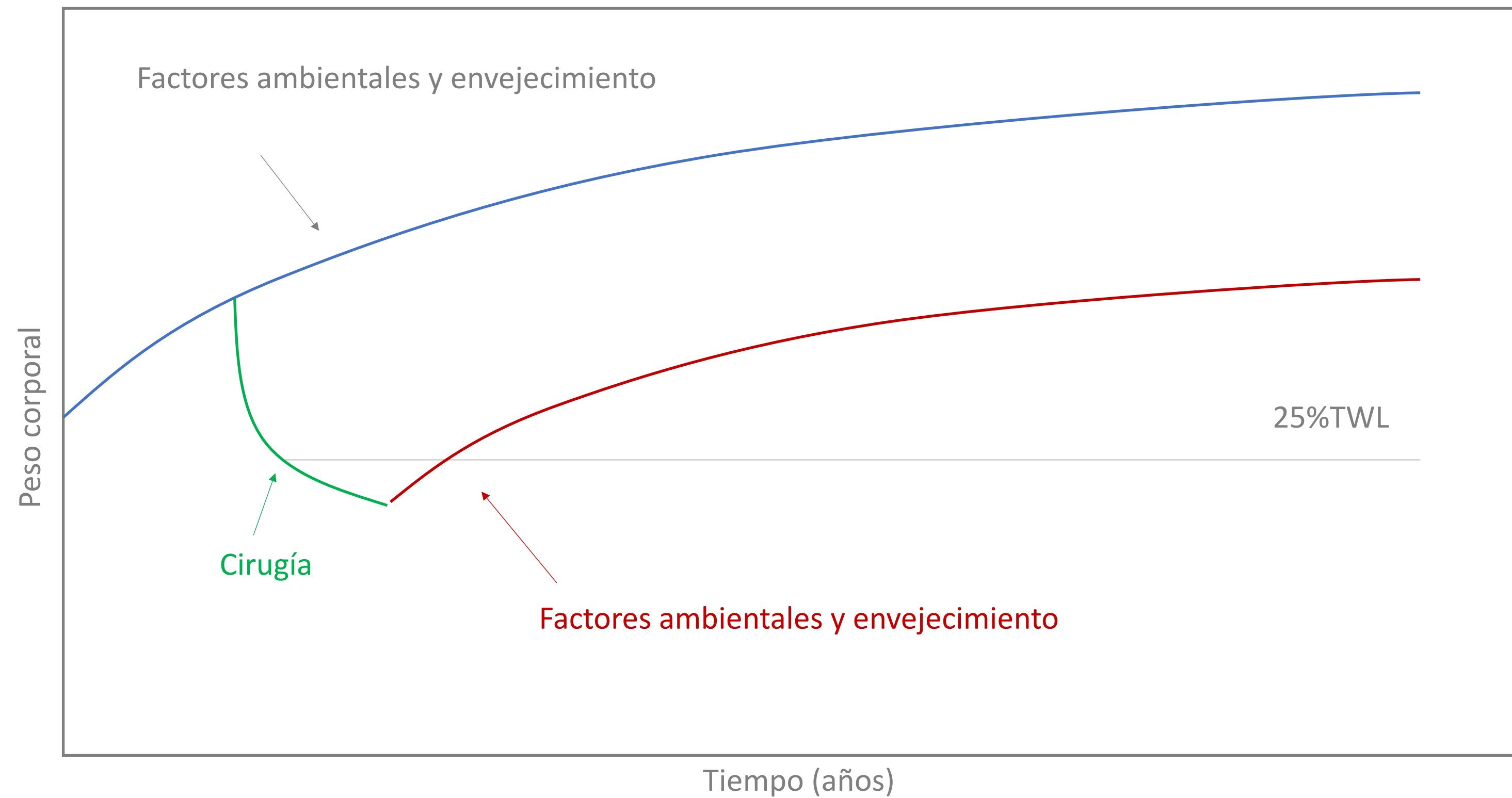
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INTRODUCTION

Bariatric surgery of severe obesity, improving or resolving metabolic and prolonging life. Successful weight loss regain occurs during 30% of the patients are

La mayor parte de la recurrencia del peso no es producto de una falla en la cirugía

Progresión de la obesidad a largo plazo



Cortesía de Dr. Lee Kaplan

Comentario Final

El tratamiento farmacológico es un **aliado** de la cirugía bariátrica y no una herramienta competitiva o excluyente.

Seleccionando al paciente adecuado, el uso de farmacoterapia-en conjunto con los cambios de estilo de vida- puede resultar en **una mayor pérdida** de peso en pacientes bariátricos.

Es fundamental entender la obesidad como una enfermedad crónica donde la cirugía bariátrica es un hito dentro del camino que recorre un paciente a lo largo de **toda una vida.**