

La chirurgia bariatrica e l'impatto sul calo ponderale

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Società Italiana di Chirurgia dell'Obesità
e delle malattie metaboliche



XXXII CONGRESSO
NAZIONALE SICOB
23 - 25 MAGGIO 2024
G I A R D I N I
N A X O S





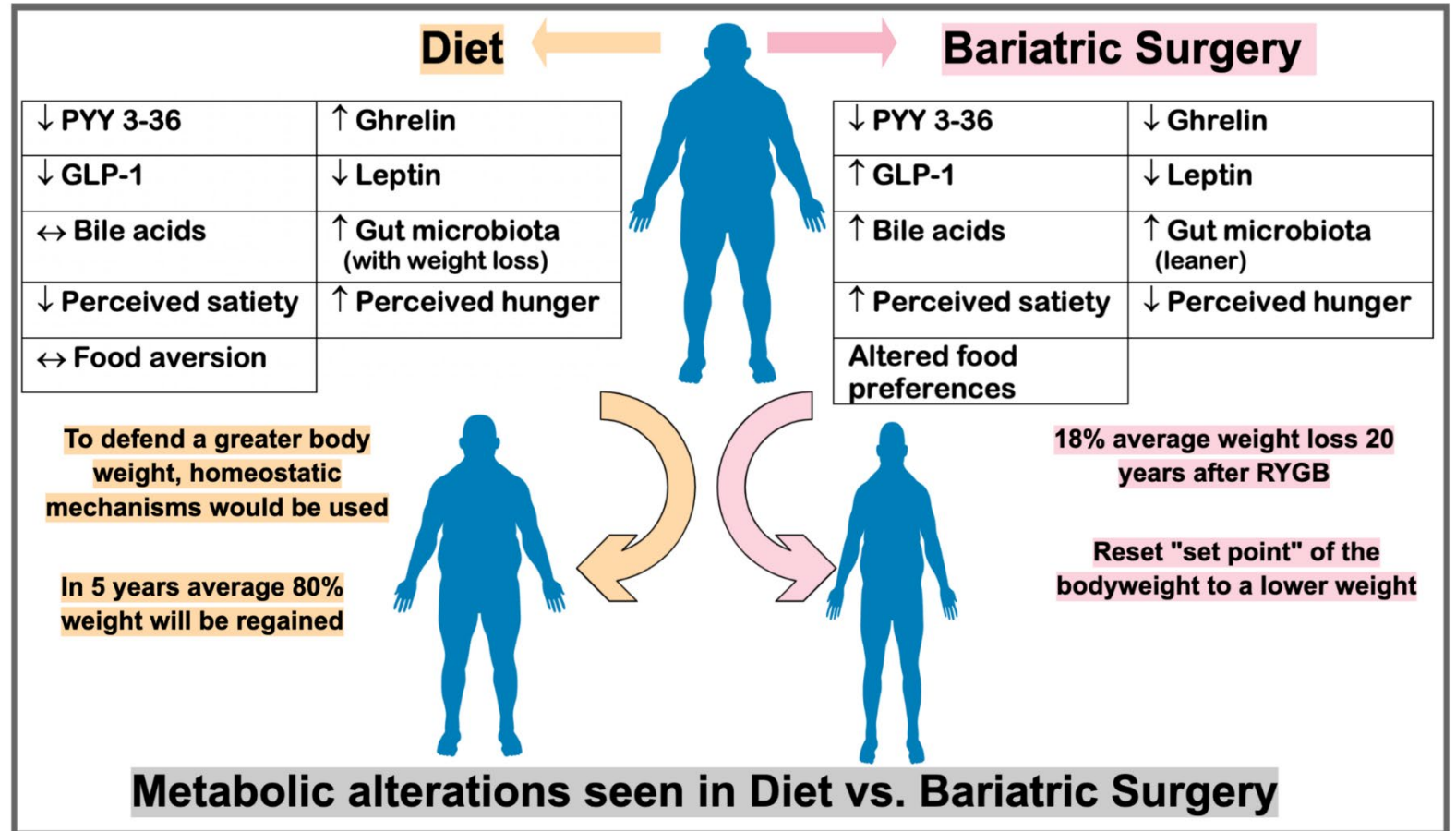
What operations are metabolic operations?

- Laparoscopic Adjustable Gastric Band
- Sleeve Gastrectomy
- Roux-en-Y Gastric Bypass
- Biliopancreatic Diversion/ Duodenal Switch



The impact of bariatric surgery

• Nutrizione e Diabetologia



The Effect of Bariatric Surgery on Metabolic Syndrome: A Three-center Experience in Saudi Arabia

METHODS

A multicentric retrospective review of all 386 obese patients who had Metabolic Syndrome (MetS) and underwent bariatric surgery between January 2016 and December 2018. A minimum follow-up of 12 months was required, hence a total of 275 patients were subsequently included and their data analyzed.



Study period: Jan 2016 to Dec 2018
Mean follow up: 30 months (12 - 48 months)

RESULTS

➤ **Key Finding 1:** MetS resolution was achieved in 78%, 79%, 73%, and 82% at 1, 2, 3, and 4 years after bariatric surgery, respectively.

➤ **Key Finding 2:** Accumulatively, 80% of patients achieved MetS resolution by the end of follow-up period. The mean follow-up period was two and a half years.

➤ **Key Finding 3:** Patients who experienced resolution of MetS tended to be of younger age, had relatively lower BMI, lower systolic blood pressure, lower triglycerides, lower fasting plasma glucose, and lower HbA1c preoperatively in addition to higher percentage of excess weight loss post-surgery when compared to those who had persistence of MetS.



CONCLUSIONS

➤ More than **three-fourths** of MetS patients achieved resolution after bariatric surgery after an average follow-up period of 2.5 years.

➤ Certain patient characteristics, such as young age and higher excess weight loss post operatively, were associated with a higher chance of MetS resolution



Authors: Abdulrahman O Alomar, Mohammed F Shaheen, Abdallah S Almaneea, Eyad K Althaqeb, Ziyad M Alshahrani, Yazeed A Jarman, Sultan Alhabdan
Title: The Effect of Bariatric Surgery on Metabolic Syndrome: A Three-center Experience in Saudi Arabia
DOI:10.1007/s11695-021-05461-3

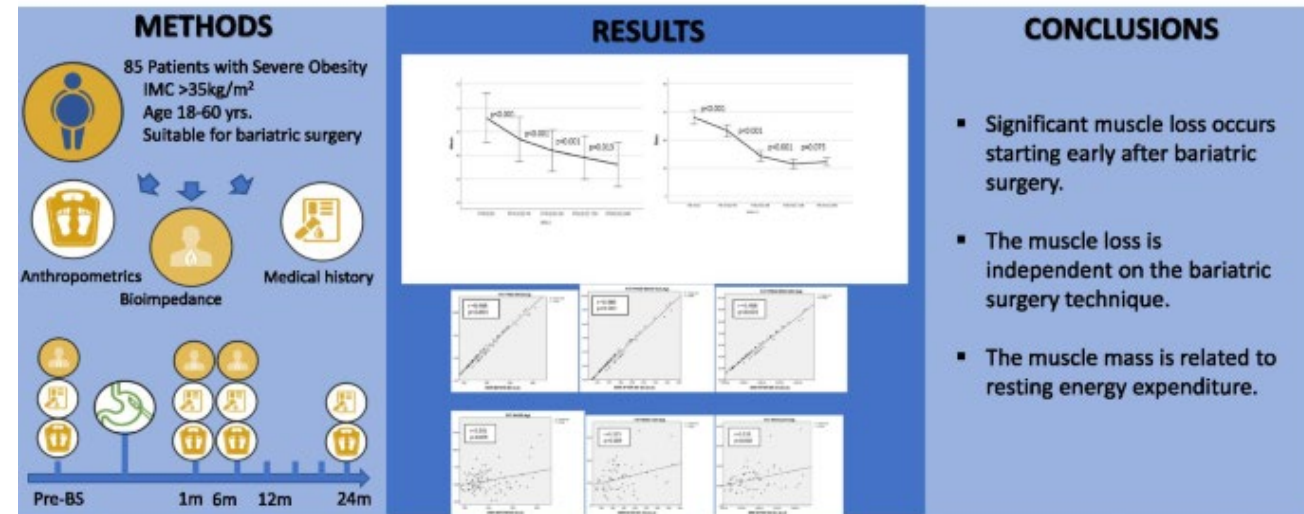


L'impatto
sulla
Sindrome
metabolica

Ricomposizione corporea e Rimodulazione ormonale



The impact of bariatric surgery on the muscle mass in patients with obesity: two years follow-up

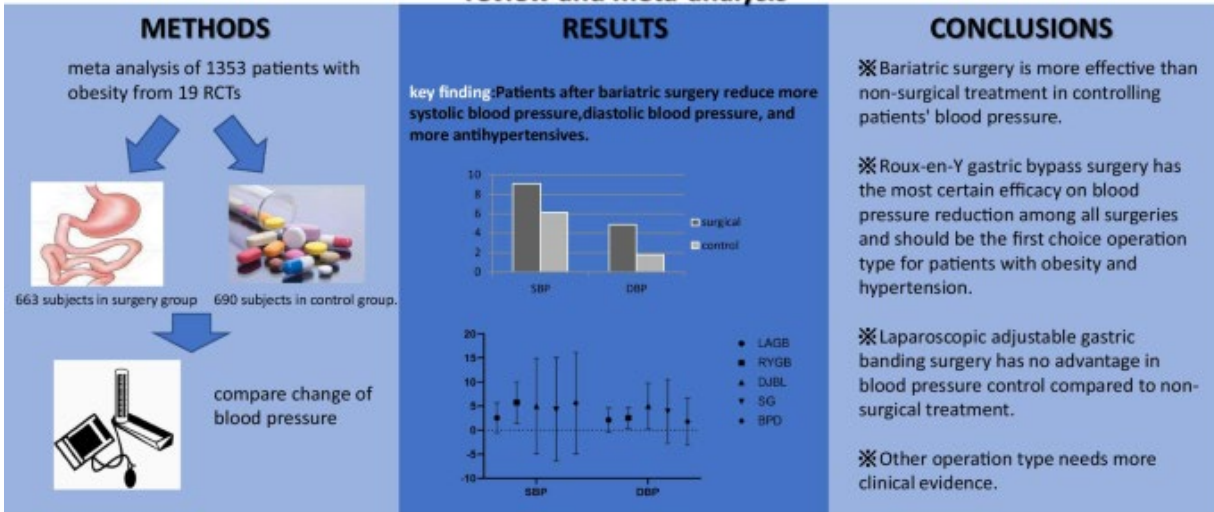


Authors: Marta Comas Martínez, Enzamaría Fidilio Mel, Fiorella Palmas Candia, Francesca Filippi, Ramon Vilallonga, Efraín Cordero, Irene Hernández, Alba Zabalegui Eguinoa, Rosa Burgos, Anna Vila, Rafael Simó*, Andrea Ciudin*

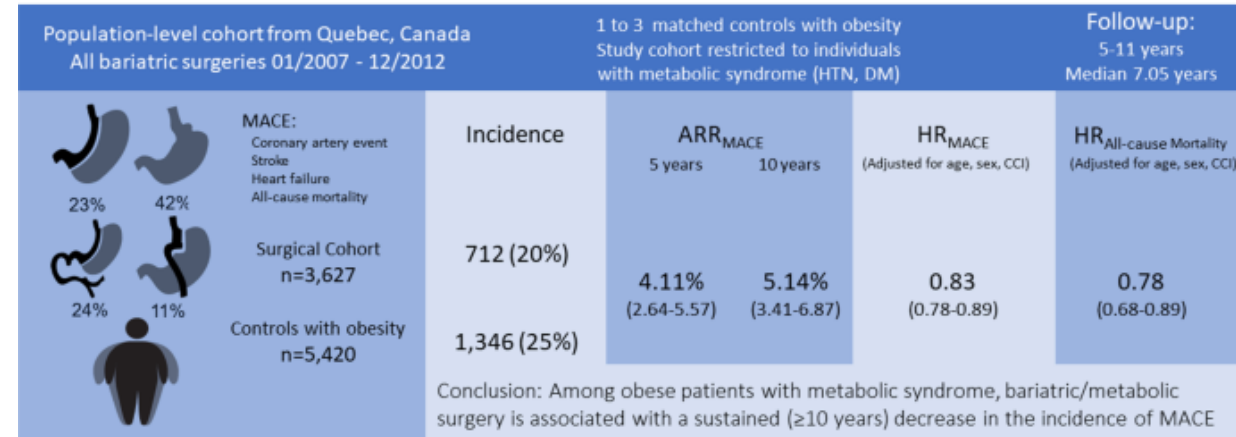


- Ipertensione arteriosa

The impact of bariatric surgery versus non-surgical treatment on blood pressure: systematic review and meta-analysis

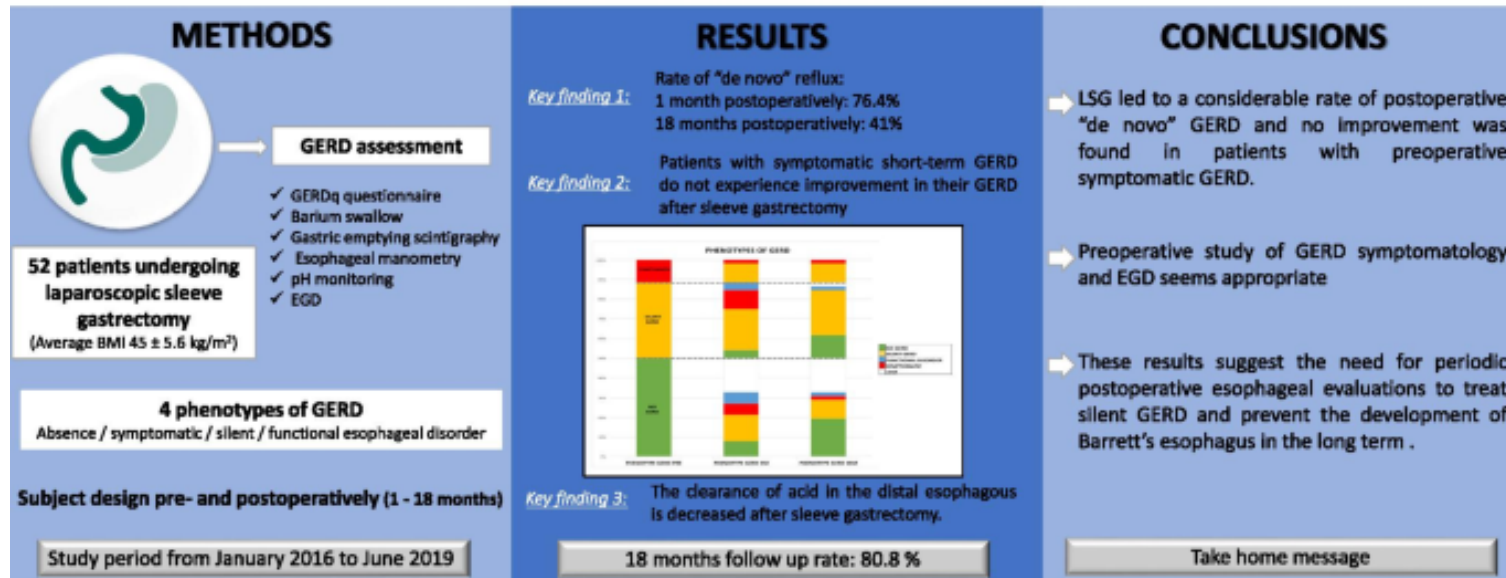


Long-term Impact of Bariatric Surgery on Major Adverse Cardiovascular Events in Patients with Obesity, Diabetes and Hypertension: A Population-level Study

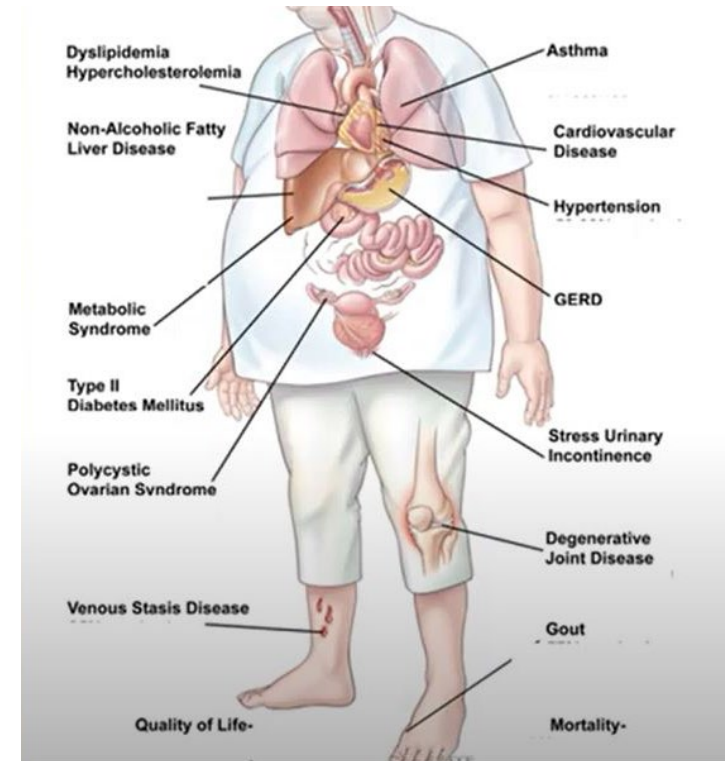
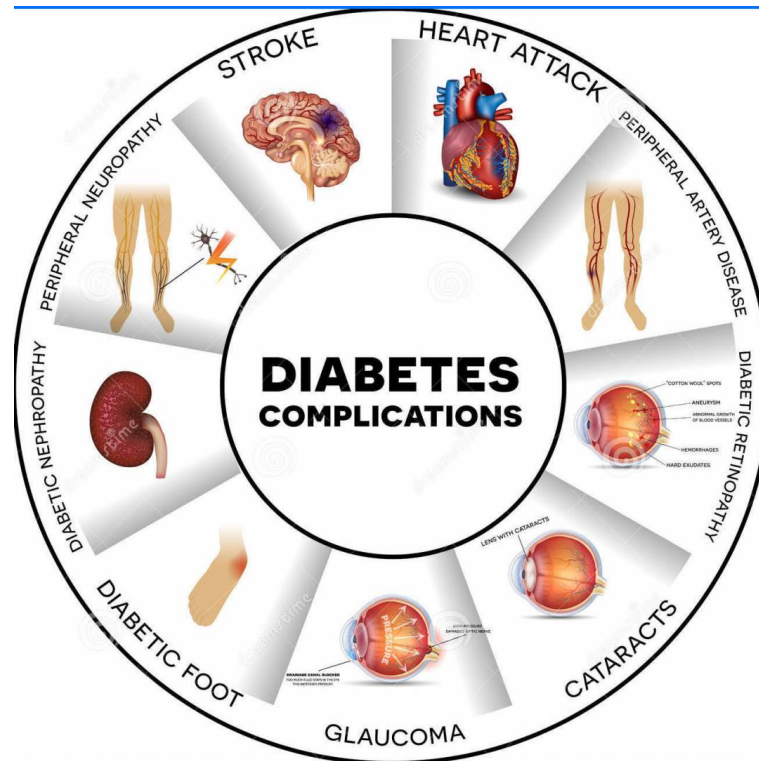


Reflusso gastroesofageo

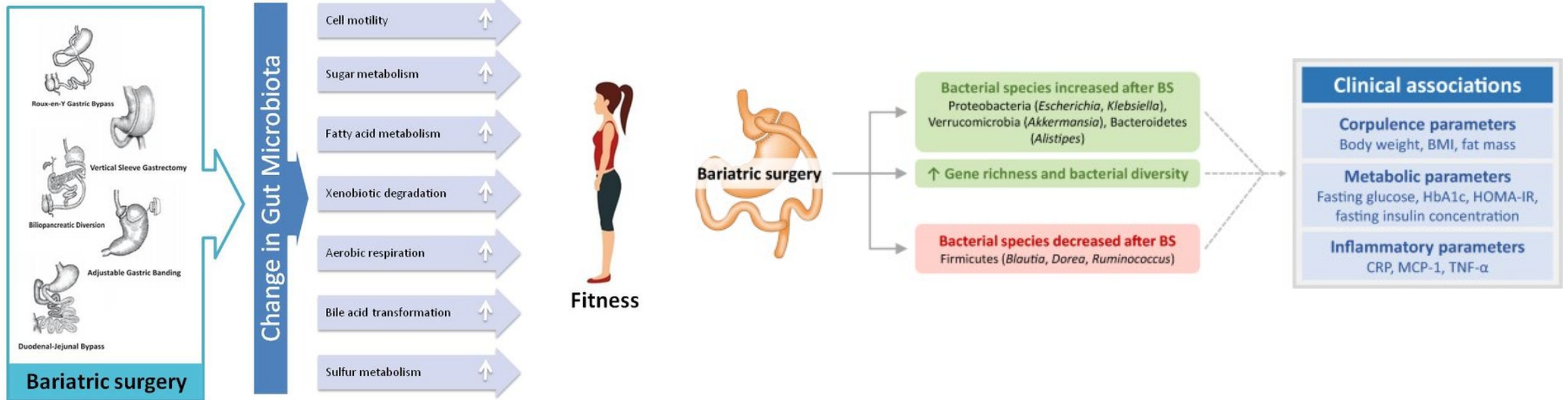
The impact of sleeve gastrectomy on gastroesophageal reflux disease in patients with morbid obesity



Weigh loss in bariatric surgery



- Microbiota intestinale



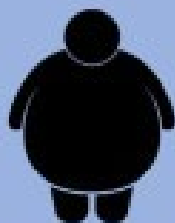
The Impact Of Bariatric Surgery On Diverticulitis Outcomes And Risk Of Recurrent Hospitalizations In Adults With Clinically Severe Obesity

METHODS

National Readmission Database (2010 - 2014)
Index admission with diverticulitis in patients with Class III obesity or prior bariatric surgery

Univariable and multivariable analysis comparing both patient groups

Propensity score assigned to both patient groups



RESULTS

Outcome	Conditional Logistic Regression OR	p-value
Mortality	17.29	<0.001
Emergency surgery	1.97	<0.001
Colectomy, any	1.70	<0.001
Colectomy, open	1.88	<0.001
Colostomy	2.47	<0.001
Surgical complications	1.58	0.01

Conclusion

Key Finding 1: Bariatric patients had less mortality, lower rates of surgery with less complications.

Key Finding 2: Bariatric patients also had lower rates of recurrent diverticulitis admissions.

CONCLUSIONS



&



Patients with prior bariatric surgery had improved outcomes in diverticulitis.



Authors: Kishan Patel, MD, Kyle Porter, MS, Somashekar G. Krishna, MD, MPH, Bradley J. Needleman, MD, Stacy A. Brethauer, MD, Darwin L. Conwell, MD, MS, Hisham Hussan, MD

OBESITY SURGERY
The Journal of Metabolic Surgery and Allied Care



The Impact of Bariatric Surgery on Menstrual Abnormalities—a Cross-Sectional Study

Anna Różańska-Wałędziak¹ · Paweł Bartnik¹ · Joanna Kacperczyk-Bartnik¹ · Krzysztof Czajkowski¹ · Maciej Wałędziak²

Received: 23 May 2020 / Revised: 30 June 2020 / Accepted: 6 July 2020
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Abstract

Introduction Obesity is associated with hyperestrogenism along with other hormonal abnormalities affecting the menstrual cycle. The most effective and decisive method of obesity treatment is bariatric surgery. The aim of this study was to analyze the impact of bariatric surgery on menstrual cycle, the incidence of menstrual abnormalities, hyperandrogenism manifestation, and contraception use.

Materials and Methods It was a cross-sectional study of 515 pre-menopausal women who had undergone bariatric surgery between 1999 and 2017 in a bariatric center. Data was collected via anonymous questionnaire, and the questions covered a 1-year period before the surgery and the last year before questionnaire completion.

Results Before the surgery, 38.6% of the patients reported irregular menstruations in comparison with 25.0% after bariatric surgery (RR = 0.65; 95%CI 0.53–0.79). The mean number of menstruations per year did not differ before and after surgery (10.2 ± 3.9 vs 10.4 ± 3.3; $p < .45$). There were no statistically significant differences in terms of prolonged menstruations, acne, and hirsutism prevalence. A total of 14.4% of patients before surgery reported estrogen-based contraception use in comparison with 15.0% after the surgery ($p < .95$). There were no significant differences in the frequency of OC use (11.0% before surgery vs 13.6% 12 months after the surgery vs 11.5% at the moment of survey administration; $p < 0.46$).

Conclusion Bariatric surgery improves the regularity of the menstrual cycle in obese women in reproductive age. The lack of any changes in the combined hormonal contraception (CHC) use, especially OC, before and after bariatric surgery may be a result of a possibly low level of contraception counseling.

Conception rates and contraceptive use after bariatric surgery among women with infertility

LABS-2 database	8% nulliparous & h/o infertility	Take-home
18 – 44 yrs old	Infertility associated with:	Increased fertility after bariatric surgery
Median f/u 6.5 yrs after surgery	Higher risk of unprotected sex (ARR 1.48*)	Unsafe sexual practices common
	Higher unplanned post-operative conception rate <small>*p=0.003</small>	Need for increased counseling

ASBMS | Menke et al., May 2019 | SURGERY FOR OBESITY AND RELATED DISEASES

Disturbi della sfera genitale femminile

Impact of Bariatric surgery on male sexual health: A prospective study

METHODS

66 male patients undergoing bariatric surgery in Kasr Alainy Hospital were prospectively recruited



Preoperative and 12 months postoperative filling of IIEF questionnaire and measuring of serum testosterone



Only 48 patients completed the study



Comparison between pre and postoperative values and regression analysis.

RESULTS



Only weight and BMI were found to be predicting the IIEF scores with statistically high significant associations. The same factors as well as the patients' age were found to be predicting the serum testosterone levels.

CONCLUSIONS

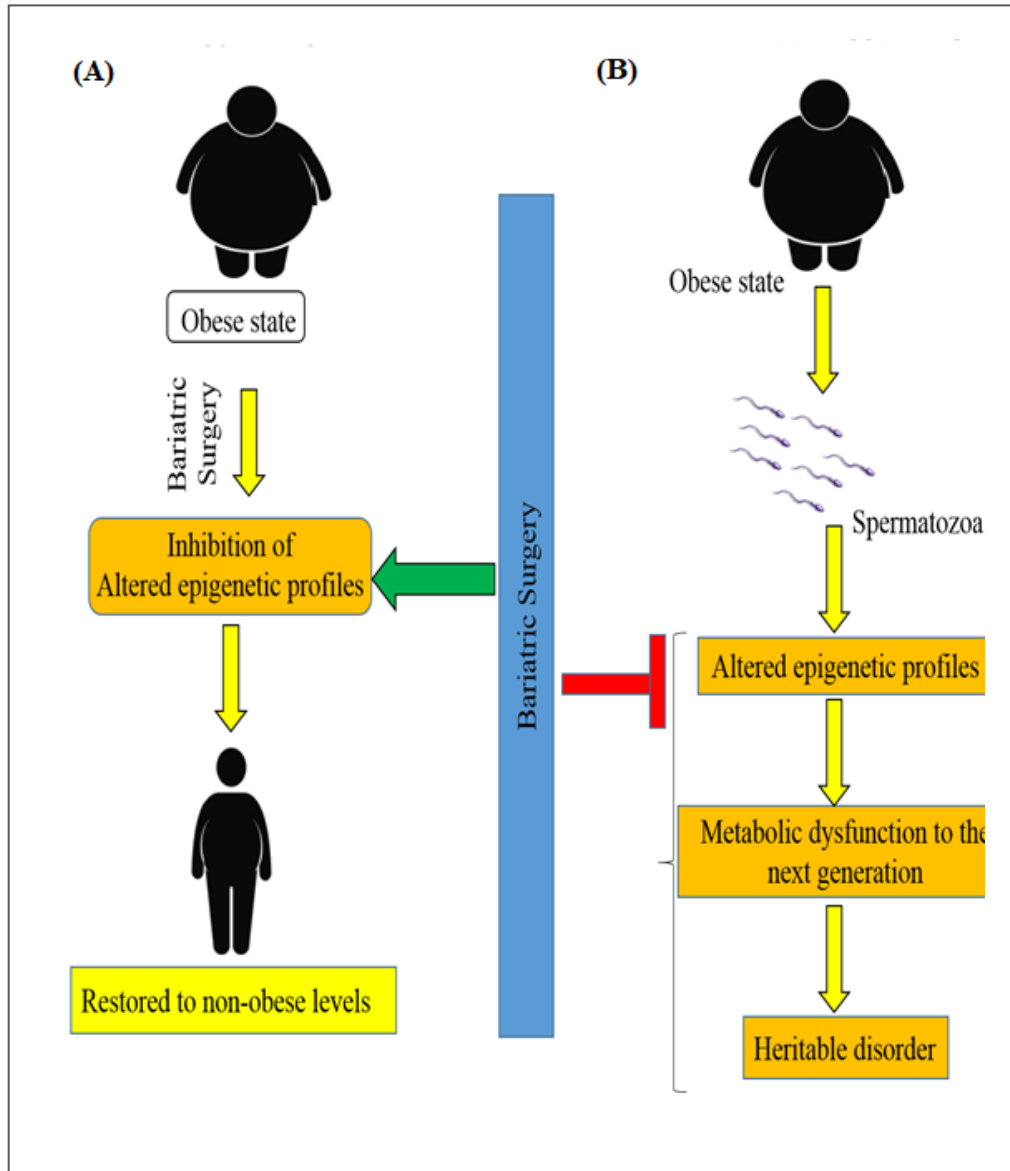
- Extreme obesity is associated with a negative impact on male sexual health.
- The bariatric surgery, besides its effect on weight reduction, it has a considerable enhancing effect on the male sexual function.



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



Obes Surg. Year _____ Month _____ doi: _____

OBESITY SURGERY
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- Epigenetica e disturbi ereditari

Systematic review and meta-analysis of the impact of bariatric surgery on lower urinary tract symptoms in males

METHODS	RESULTS	CONCLUSIONS
 <p>Systematic review and meta-analysis of the impact of bariatric surgery on LUTS in male patients</p> <p>158 references ↓ 7 studies (334 patients) included</p>	 <ul style="list-style-type: none">✓ LUTS significantly improved following bariatric surgery✓ Mean change IPSS of 2.82✓ Only two studies evaluated patients with moderate LUTS pre-operatively	 <p>Bariatric surgery is associated with clinically meaningful change in LUTS</p>  <p>Clearer understanding of mechanisms of action and urodynamics is required</p>



Authors: Stefanova I, Currie AC, Newton RC, Albon L, Slater G, Birnie A, Hawkins W & Pring C
Title: Systematic review and meta-analysis of the impact of bariatric surgery on lower urinary tract symptoms in males

OBSESITY SURGERY
The Journal of Metabolic Surgery and Allied Care

- Disturbi del tratto urinario



METHODS

The clinical materials for patients who underwent bariatric surgery were retrospectively analyzed with a six-month follow-up period between January 1, 2018, and June 1, 2020. The eGFR (mL/min) was calculated using the Cockcroft-Gault formula equation. The urinary ACR was measured during the follow-up. Body mass index (BMI, kg/m²), percent weight loss (%WL), systolic blood pressure (SBP), and diastolic blood pressure (DBP) were recorded during the follow-up.

RESULTS

Sixty-one patients who underwent bariatric surgery—laparoscopic Roux-en-Y gastric bypass (LRYGB; n=22) and laparoscopic sleeve gastrectomy (LSG; n=39)—were included in this study. The eGFR of both groups decreased at the follow-up outpatient visits ($p<0.001$), although eGFR did not differ between the two groups.

Unexpectedly, the ACR increased in the first month after LSG ($p<0.01$) but decreased with a descending trend with no significant difference ($p>0.05$) throughout the remaining follow-up period. Interestingly, ACR showed a descending trend with no significant difference during the follow-up in the LRYGB group ($p>0.05$). The SBP and DBP decreased after bariatric surgery, with no significant difference between the two groups ($p>0.05$).

CONCLUSIONS

Bariatric surgery is associated with improvements in postoperative renal function 6 months following surgery. The different alterations in ACR following LSG and LRYGB procedures demonstrate the underlying mechanism.



Authors: Taotao Zhang, Yong Wang, Xiangwen Zhang, Wendi Wang, Guohua Zhao
Title: The impact of bariatric surgery on renal function: a retrospective analysis of short-term outcomes
Obes Surg. year Month doi:

OBESITY SURGERY

The Journal of Metabolic Surgery and Allied Care

Disturbi neurochirurgici

Article

The Health Economic Evaluation of Bariatric Surgery Versus a Community Weight Management Intervention Analysis from the Idiopathic Intracranial Hypertension Weight Trial (IIH:WT)

Magda Aguiar¹, Emma Frew¹, Susan P. Mollan^{2*}, James L. Mitchell^{3,4}, Ryan S. Ottridge⁵,
Zerin Alimajstorovic^{3,6}, Andreas Yiangou^{3,4}, Rishi Singhal^{6,7}, Abd A. Tahrani^{3,8,9} and Alex J. Sinclair^{3,4,8}

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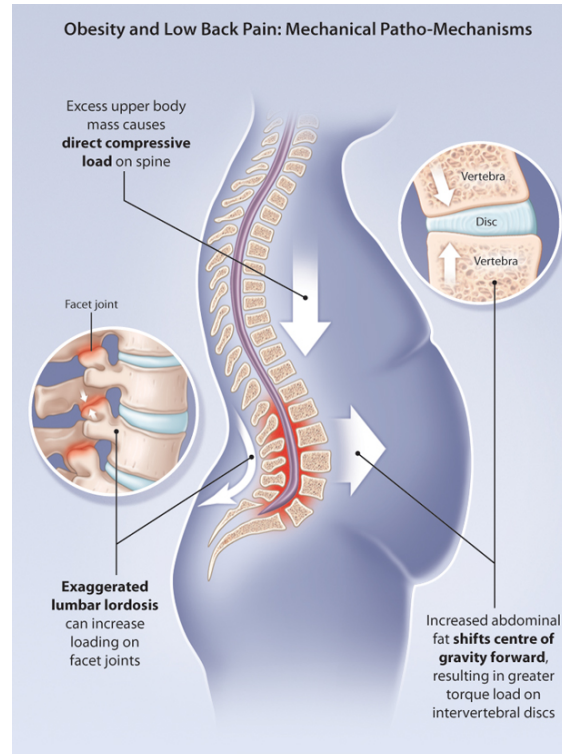
⁸ Centre for Endocrinology, Diabetes and Metabolism, Birmingham Health Partners, Birmingham B15 2GW, UK

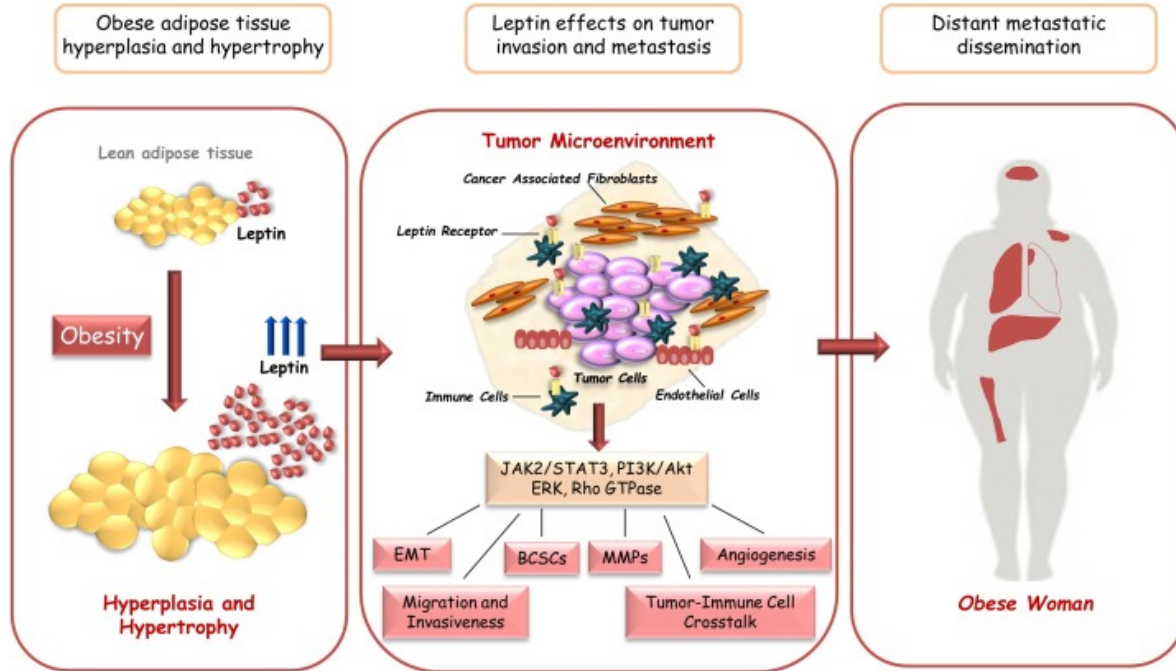
⁹ Department of Endocrinology, University Hospitals Birmingham NHS Foundation Trust, Queen Elizabeth Hospital, Birmingham B15 2WB, UK

* Correspondence: soozmollan@doctors.org.uk; Tel: +44-00-121-371-16912



Citation: Aguiar, M.; Frew, E.; Mollan, S.P.; Mitchell, J.L.; Ottridge, R.S.; Alimajstorovic, Z.; Yiangou, A.; Singhal, R.; Tahrani, A.A.; Sinclair, A.J. The Health Economic Evaluation of Bariatric Surgery Versus a Community Weight Management Intervention Analysis from the





The Effect of Bariatric Surgery on Breast Cancer Incidence and Characteristics: A Systematic Review and Meta-Analysis

Bariatric Surgery in Women with Obesity May Reduce the Risk of Subsequent Breast Cancer

11 papers representing 1,106,939 females with obesity

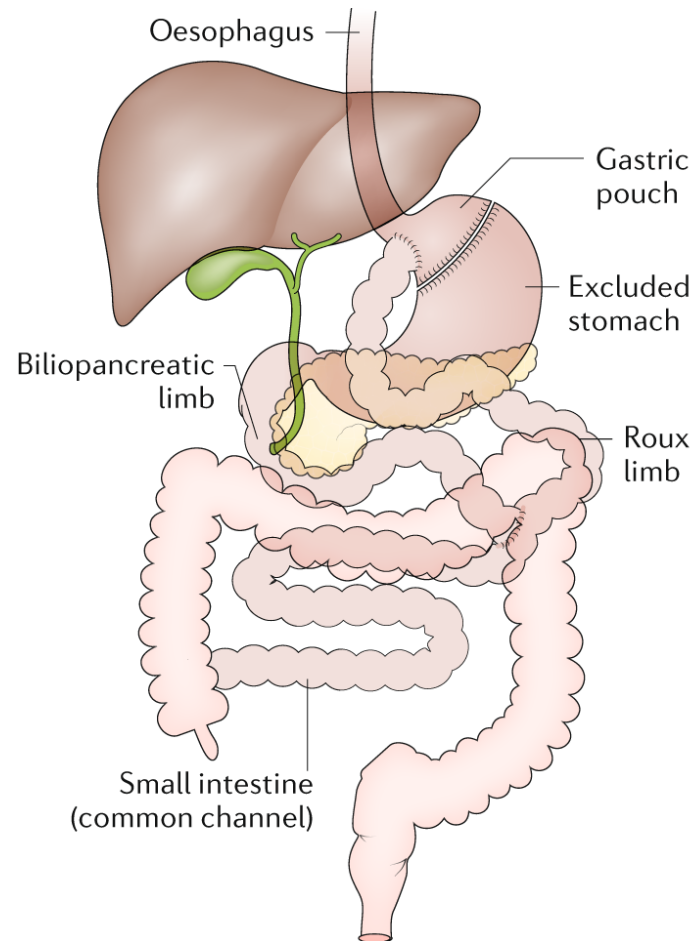
105,294 underwent bariatric surgery vs 1,001,645 BMI-matched non-surgical controls

Fewer breast cancers diagnosed after surgery
RR 0.59, 95%CI 0.37-0.87, P=58%

Lozano et al. 2020

Breast cancer

Cancer risk after bariatric surgery: colorectal cancer



Dietary change (high protein)
Changes in protein metabolism
• ↑ N-nitrosation

Persistent low microbial diversity
Changes in microbial metabolites
• ↓ Short-chain fatty acids
• ↑ Secondary bile acids

Secondary bile acid exposure
Pro-carcinogenic factors
• ↑ Oxidative and/or nitrosative stress
• ↑ NF-κB activation
• ↑ DNA damage

↑ Proinflammatory and mitogenic gene expression

OBES SURG (2018) 28:945–954
DOI 10.1007/s11695-017-2953-6



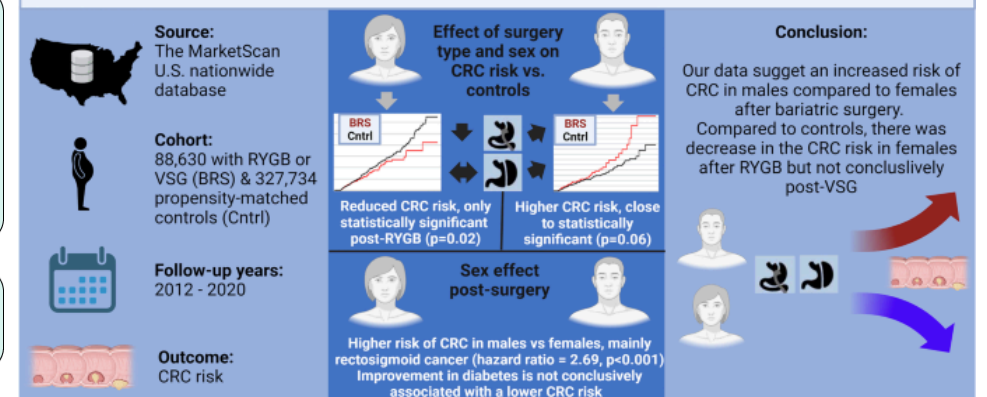
ORIGINAL CONTRIBUTIONS

Biomarkers of Colorectal Cancer Risk Decrease 6 months After Roux-en-Y Gastric Bypass Surgery

Sorena Afshar^{1,2} • Fiona Malcomson¹ • Seamus B. Kelly² • Keith Seymour² • Sean Woodcock² • John C. Mathers¹

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COLORECTAL CANCER RISK IS IMPACTED BY SEX AND TYPE OF SURGERY AFTER BARIATRIC SURGERY



Hisham Hussan; Samuel Akinyeye; Maria Mihaylova; Eric McLaughlin; Chienwei Chiang; Steven K. Clinton; and David Lieberman





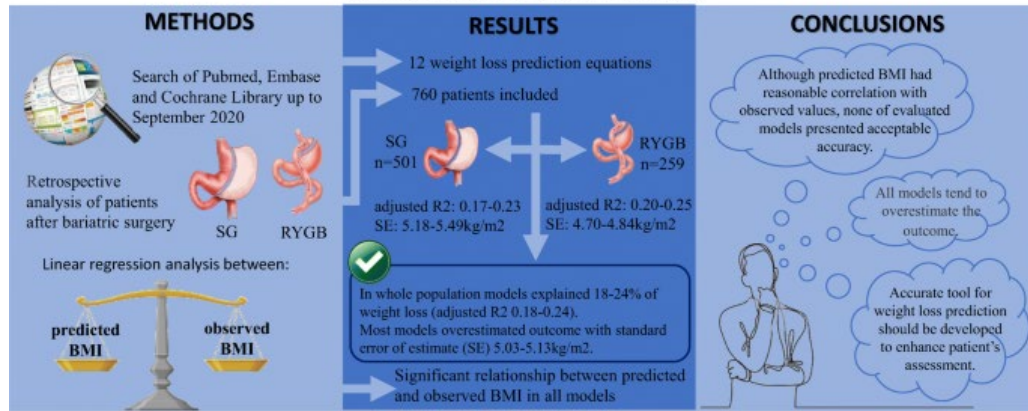
BRIDGE Study

Bariatric suRgery as brIDge to cancer surGEry

- Inclusion criteria:
 - *Patients with obesity diagnosed with primary cancer of any organ: Can they undergo bariatric/metabolic surgery (BMS) to facilitate subsequent cancer surgery and improve outcomes?*
 - *Patients in whom BMS was done as a bridge to facilitate surgery for cancer*
 - *Any Surgical or Endoscopic (Eg: gastric balloon, Endoscopic Sleeve Gastroplasty, gastric plication) bariatric procedure as bridge to facilitate subsequent operation for malignancy*
- Understand challenges in diagnosis and management of malignancies in such patients and options of different bariatric procedures
- This is a registered multi-national audit
- All contributors will be collaborative authors as per protocol
- This is a retrospective study
- Please DM us for further details: drcdparmar@gmail.com

Chetan Parmar & Omar Ghanem

Title: Is it possible to predict weight loss after bariatric surgery? - external validation of predictive models.



Authors: Karpińska IA, Kulawik J, Pisarska-Adamczyk M, Wysocki M, Pędziwiatr M, Major P
 Title: Is it possible to predict weight loss after bariatric surgery? - external validation of predictive models.
 Obes Surg year Month doi:



Long-term Efficacy of Bariatric Surgery for the Treatment of Super-Obesity: Comparison of SG, RYGB and OAGB



Tien-Chou Soong, Ming-Hsien Lee, Wei-Jei Lee, Owaid M. Almalki, Jung-Chien Chen, Chun-Chi Wu, Shu-Chun Chen. Obes Surg 2021



«Quanto peso perderò dopo l'intervento?»

**What is weight loss after bariatric surgery expressed in Percentage Total Weight Loss (%TWL)?
A systematic review.**

METHODS

In this systematic review, performed according to the PRISMA-statement, results of laparoscopic sleeve gastrectomy (LSG) and Roux-en-Y gastric bypass (LRYGB) are assessed in %TWL.

RESULTS

A total of 13426 studies were screened and 49 were included, in which data of 24760 patients is reported.

Pooled mean TWL was 31.9% after LRYGB and 29.5% after LSG at one year follow-up, based on data of 19 and 13 studies respectively.

Pooled mean TWL at five year follow-up was 28.1% and 27.0% after LRYGB and LSG, based on data of 11 and 5 studies respectively.

CONCLUSIONS

Despite limiting data, LRYGB is favorable over LSG in terms of weight loss in short term follow-up.

Although recent guidelines recommend to use %TWL when reporting outcome in bariatric surgery, this study shows that there is still insufficient quality data in %TWL, especially on LSG.

The use of %TWL as the primary outcome measure in bariatric surgery should be encouraged.

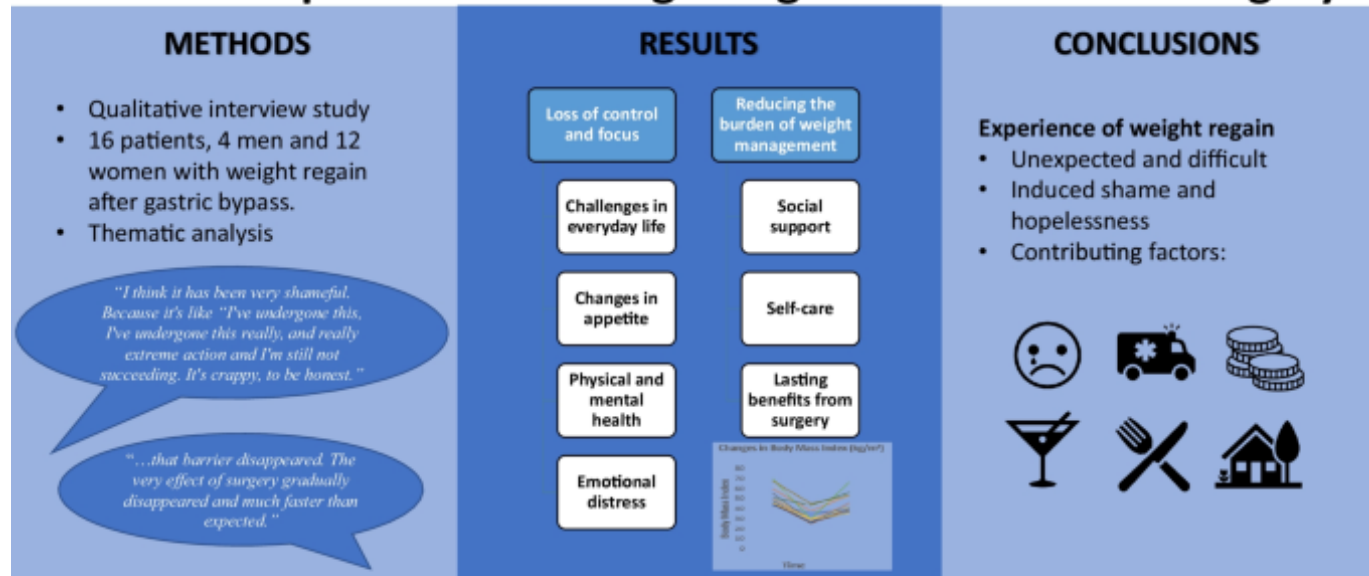


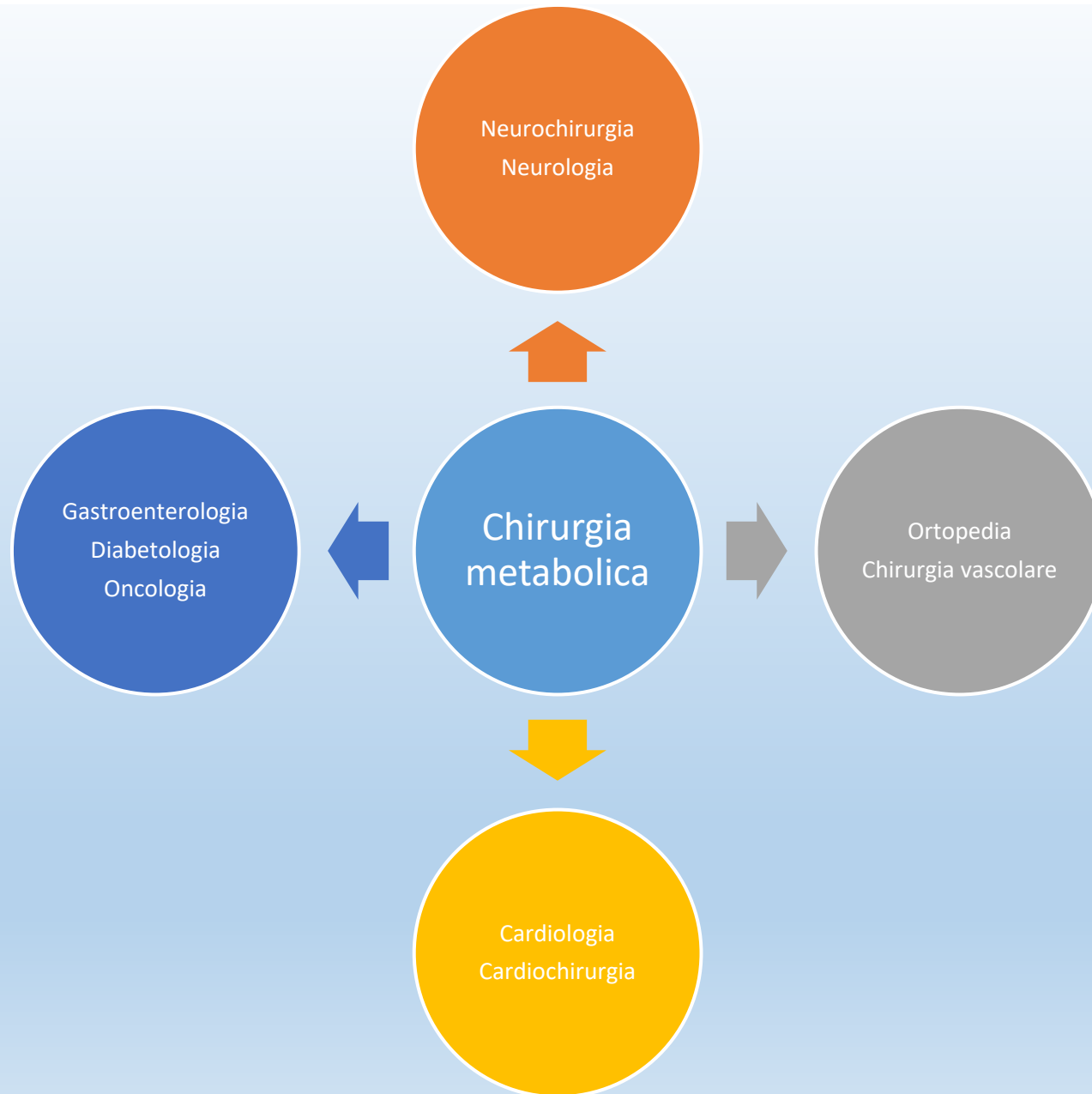
Authors: A. van Rijswijk, N. van Olst, W. Schats, D.L. van der Peet, A.W. van de Laar
Title: What is weight loss after bariatric surgery expressed in Percentage Total Weight Loss (%TWL)? A systematic review.
Obes Surg/year Month doi:



Weight regain

Patients' experiences of weight regain after bariatric surgery





- Ogni intervento chirurgico presuppone una valutazione e un iter **multidisciplinare**;
- Non esiste l'intervento ideale o l'intervento perfetto; ci sono differenti tipologie d'intervento chirurgico, ognuna con specifiche **indicazioni e limiti**;
- La scelta dell'intervento chirurgico deve essere **adeguata alla tipologia di paziente, all'obiettivo da raggiungere**, al percorso multidisciplinare pre- e post-intervento, e condivisa col paziente stesso;
- **La chirurgia metabolica è una chirurgia trasversale e a ponte tra diverse branche mediche e chirurgiche, con le quali condivide i medesimi endpoint.**

Take Home Messages



Grazie.

