

## COMBINED TREATMENT AT THE EXTREME OF AGES

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## **CLINICAL CASES**





## FIRST CASE

## dietary treatments + gastric balloon + gastric sleeve

#### **BACKGROUND**

15-year-old patient

Ex-smoker 5-6 months ago
Adenoidectomy-amignalectomy
Asthmatic bronchitis Viral meningitis at 5 years old
No comorbilities due to obesity disease

USUAL MEDICATION Salbutamol, Vitamins

#### **OBESITY DISEASE HISTORY:**

Morbid obesity since chilhood controlled at the pediatric endocrinology unit

He went on several dietary treatments without success.

On May 2023: **gastric balloon** placement. Until November 2023 : the intragastric balloon was withdrawn.

#### **CURRENT STATE:**

15-year-old patient admitted for **gastric sleeve** after the failure of conservative measures and gastric balloon



#### PHYSICAL ASSESMENT:

· Anthropometric measurements:

- First assesment: weight: 162Kg, Height: 175.5cm, BMI: 52.60Kg/m2

- last assesment : Weight: 153Kg Height: 175.5cm BMI: 49.67Kg/m2

#### **COMPLEMENTARY TESTS**

ENDOSCOPY: HP (-). Chronic gastritis

Ultrasound: hepatic steatosis

#### SURGICAL PROCEDURE

Surgical intervention 11/28/2024:

Under general anesthesia, sleeve-type robotic tubular gastroplasty is successfully performed, without presenting any incidents anti-Trendelemburg position. Intermittent pneumatic compression of the lower limbs. Antibiotic prophylaxis with 2 grams of Cefazolin

Pneumoperitoneum with Veress needle. CO2 insufflation up to 15 mmHg.

Da Vinci®: 8 mm x 3 : arms 1, 3 and 4, 30° scope in 3 arm

12 mm x1 : arm

A drain was placed. Methylene blue test was negative.



#### **EVOLUTION**

No complications occurred in the immediate postoperative period, and the patient began oral tolerance 24 hours after surgery. He was discharged on postoperative day 3 with adequate oral tolerance.

#### **FOLLOW UP**

- <u>3 weeks after surgery:</u> the patient was feeling well and tolerating a puree and soft solid diet.
- Six months later, her weight was 120 kg and her BMI was 39 kg/m2
- One year after surgery. Her weight was 90 kg and her BMI was 29 kg/m2, with weight stabilization. TWL of 72 kgrs from the beginning, 63 kgrs since surgery
- Two years later, her weight remained steady. Along the third PO year, he was assessed by aesthetic surgery. He went on aesthetic surgery on the fourth PO year.

## **SECOND CASE**

## gastric sleeve + sadi-s

#### **BACKGROUND**

21-year-old patient

No comorbilities

Suplements: iron, calcium, B12, ac folic, sleeve-multivitamins (sleeve-

Barimix®)

No GERD

#### **CURRENT STATE:**

21 -year-old patient admitted for SADI-S as revisional surgery due to weight regain

#### PHYSICAL ASSESMENT:

· Anthropometric measurements:

weight: 120 Kg, Height: 154 cm, BMI: 50.6 Kg/m2

#### **COMPLEMENTARY TESTS**

ENDOSCOPY: Changes of sleeve, no hiatal hernia, polypectomy of polyp 6mm;

Ultrasound:normal

#### **OBESITY DISEASE HISTORY:**

sleeve lap 04/27/2015; BMI: 60.75 at that time

Starting weight: 144 kg Height: 154 cm

Theoretical: 51 kg Excess: 93 kg

Nadir after sleeve: 85 kg at 1.5 year PO



#### **SURGICAL PROCEDURE:** July 2021

sleeve dissection up to 3 cm of the duodenum with identification of the pyloric junction, which is clipped.

Duodenal transection with a blue Echelon®

Ileal loop at 270 cm. Two-layed anastomosis with four barbades sutures(V-lock ®, PD 30, PD 30, and Vlock )end-to-lateral duodeno-ileal anastomosis.

Methylene blue test was negative

A drain was placed

#### **EVOLUTION**

No complications occurred in the immediate postoperative period, and the patient began oral tolerance 24 hours after surgery. He was discharged on postoperative day 3 with adequate oral tolerance.



#### **FOLLOW UP**

- <u>3 weeks after surgery:</u> the patient was feeling well and tolerating a puree and soft solid diet, and taking multiviltamin( SADI-S Bariamix®)
- Six months later, her weight was 100 kg and her BMI was 42,2 kg/m2
- One year after surgery. Her weight was 85 kg and her BMI was 35.8 kg/m2, with weight stabilization. TWL after SADI-S 35 Kgrs
- Nowadays her weight remained steady. Assesed by aesthetic surgery due to a large abdominal flap, she was rejected cause a BMI of 35; 85 Kgrs. She needs to reach at least 72 kgrs

### THRID CASE

## **Diet treatment + gastric sleeve**

#### **BACKGROUND**

A 70-year-old woman high blood pressure, dyslipidemia, OSA with C-PAP autoimmune thrombocytopenia and arthropathy due to obesity saphenectomy.

#### **OBESITY DISEASE HISTORY:**

Long-term morbid obesity treated only with diet.

#### **CURRENT STATE**

70-year-old patient admitted for gastric sleeve after diet treatment

After evaluation by a multidisciplinary committee due to poor control of his hypertension and worsening of OSA, a laparoscopic sleeve gastrectomy was performed.

The patient was optimized with a very low-calorie preoperative diet

#### PHYSICAL ASSESMENT:

BMI: 48 kg/m2

weight 144 kg, height 173 cm

#### **COMPLEMENTARY TESTS**

ENDOSCOPY: HP (+). Chronic gastritis

Ultrasound: hepatic steatosis

Erradication treatment for 10 days with Pylera ® 140 mg/125 mg/125 mg :Bismuth subcitrate potassium, metronidazole

tetracycline hydrochloride

Checking test after treatment: 6 weeks afterwards: HP(-)

#### **SURGICAL PROCEDURE:** November 2022

Weight on surgical day: 120 kg (BMI 40.09 kg/m2)

Laparscopy sleeve: using our standard technique (40-fr Fouchet tube, 60-fr Echelon® Flex Powered tube protected with Seamguard®).

anti-Trendelemburg position.Intermittent pneumatic compression of the lower limbs. Antibiotic prophylaxis with 2 grams of Cefazolin

Methylene blue test was negative.



#### **EVOLUTION**

No complications occurred in the immediate postoperative period, and the patient began oral tolerance 24 hours after surgery. He was discharged on postoperative day 3 with adequate oral tolerance

#### **FOLLOW UP**

- <u>3 weeks after surgery:</u> the patient was feeling well and tolerating a puree and soft solid diet. Her blood pressure was controlled without drugs and she was no longer using CPAP.
- <u>Six months later</u>, her weight was 92 kg and her BMI was 30.2 kg/m2, her blood pressure remained controlled without antihypertensive medication y dyslipidemia was resolved.
- One year after surgery. Her weight was 85 kg and her BMI was 28.4 kg/m2, with weight stabilization.
- Two years later, her weight remained steady





#### **ORIGINAL CONTRIBUTIONS**



# 2022 American Society of Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) Indications for Metabolic and Bariatric Surgery

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## **Extremes of age**





#### **Older population**

- surgery has been performed successfully in increasingly older patients over the past few decades, including individuals >70 years of age
- slightly higher rates of postoperative complications compared with a younger population, but still provides substantial benefits of weight loss and remission of comorbilities
- Frailty, rather than age alone, is independently associated with higher rates of postoperative complications following MBS
- The risk of surgery should be evaluated against the morbidity risk of obesity-related diseases.
- There is no evidence to support an age limit on patients seeking MBS, but careful selection that includes assessment of frailty is recommended.

#### Pediatrics and adolescents

- MBS is safe in the population younger than 18 years and produces durable weight loss and improvement in comorbid conditions.
- The prospective TeenLongitudinal Assessment of Bariatric Surgery database (Teen-LABS) demonstrated significant weight loss and durable improvement in cardiovascular risk factors (hypertension and dyslipidemia )and T2D in adolescents undergoing MBS.
- MBS does not negatively impact pubertal development
- Durable weight loss and maintained co-morbidity remission in patients as young as 5 years old
- Children and adolescents with BMI >120% of the 95th percentile and a major co-morbidity, or a BMI >140% of the 95th percentile, should be considered for MBS after evaluation by a multidisciplinary team in a specialty center.









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#### Original articles

Bariatric procedures in adolescents are safe in accredited centers

Maria S. Altieri\*, Aurora Pryor, Andrew Bates, Salvatore Docimo, Mark Talamini, Konstantinos Spaniolas

Division of Bariatric, Foregut and Advanced Gastrointestinal Surgery, Department of Surgery, Stony Brook University Medical Center, Stony Brook Received 26 December 2017; received in revised form 15 March 2018; accepted 10 April 2018; Available online xxx

Indications and contraindications for adolescent metabolic and bariatric surgery (MBS)

#### Indications for adolescent MBS include

- BMI ≥35 kg/m<sup>2</sup> or 120% of the 95th percentile with clinically significant co-morbid conditions such as obstructive sleep apnea (AHI > 5), T2D, IIH, NASH, Blount's disease, SCFE, GERD, or hypertension; or BMI ≥40 kg/m<sup>2</sup> or 140% of the 95th percentile (whichever is lower).
- · A multidisciplinary team must also consider whether the patient and family have the ability and motivation to adhere to recommended treatments pre- and

#### Contraindications for adolescent MBS include

- A medically correctable cause of obesity
- An ongoing substance abuse problem (within the preceding yr)
- A medical, psychiatric, psychosocial, or cognitive condition that prevents adherence to postoperative dietary and medication regimens.
- Current or planned pregnancy within 12 to 18 mo of the procedure

BMI = body mass index; AHI = apnea-hypopnia index; T2D = type 2 diabetes; IIH = idiopathic intracranial hypertension; NASH = nonalcoholic steatohepatitis; SCFE = slipped capital femoral epiphysis; GERD = gastroesophageal reflux disease.









