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EVENTI**



**SICOB CONVEGNO EMILIA-ROMAGNA
CESENA 19 - 20 Aprile 2024**

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RESP. SCIENTIFICI: S. CARIANI, V. CORSO, A. LUCCHI**

**Dall'Alimento alla Chirurgia:
il Trattamento Integrato
dell'Obesità**

**«Gestione di un paziente già
sottoposto a chirurgia
bariatrica nel Dipartimento
Emergenza-Urgenza»
Cosa si deve fare in Pronto
Soccorso**

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Worldwide trends in underweight and obesity from 1990 to 2022: a pooled analysis of 3663 population-representative studies with 222 million children, adolescents, and adults

NCD Risk Factor Collaboration (NCD-RisC)*

Summary

Background Underweight and obesity are associated with adverse health outcomes throughout the life course. We estimated the individual and combined prevalence of underweight or thinness and obesity, and their changes, from 1990 to 2022 for adults and school-aged children and adolescents in 200 countries and territories.

Methods We used data from 3663 population-based studies with 222 million participants that measured height and weight in representative samples of the general population. We used a Bayesian hierarchical model to estimate trends in the prevalence of different BMI categories, separately for adults (age ≥20 years) and school-aged children and adolescents (age 5–19 years), from 1990 to 2022 for 200 countries and territories. For adults, we report the individual and combined prevalence of underweight (BMI <18.5 kg/m²) and obesity (BMI ≥30 kg/m²). For school-aged children and adolescents, we report thinness (BMI <2 SD below the median of the WHO growth reference) and obesity (BMI >2 SD above the median).

Findings From 1990 to 2022, the combined prevalence of underweight and obesity in adults decreased in 11 countries (6%) for women and 17 (9%) for men with a posterior probability of at least 0.80 that the observed changes were true decreases. The combined prevalence increased in 162 countries (81%) for women and 140 countries (70%) for men with a posterior probability of at least 0.80. In 2022, the combined prevalence of underweight and obesity was highest in island nations in the Caribbean and Polynesia and Micronesia, and countries in the Middle East and north Africa. Obesity prevalence was higher than underweight with posterior probability of at least 0.80 in 177 countries (89%) for women and 145 (73%) for men in 2022, whereas the converse was true in 16 countries (8%) for women, and 39 (20%) for men. From 1990 to 2022, the combined prevalence of thinness and obesity decreased among girls in five countries (3%) and among boys in 15 countries (8%) with a posterior probability of at least 0.80, and increased among girls in 140 countries (70%) and boys in 137 countries (69%) with a posterior probability of at least 0.80. The countries with highest combined prevalence of thinness and obesity in school-aged children and adolescents in 2022 were in Polynesia and Micronesia and the Caribbean for both sexes, and Chile and Qatar for boys. Combined prevalence was also high in some countries in south Asia, such as India and Pakistan, where thinness remained prevalent despite having declined. In 2022, obesity in school-aged children and adolescents was more prevalent than thinness with a posterior probability of at least 0.80 among girls in 133 countries (67%) and boys in 125 countries (63%), whereas the converse was true in 35 countries (18%) and 42 countries (21%), respectively. In almost all countries for both adults and school-aged children and adolescents, the increases in double burden were driven by increases in obesity, and decreases in double burden by declining underweight or thinness.

Interpretation The combined burden of underweight and obesity has increased in most countries, driven by an increase in obesity, while underweight and thinness remain prevalent in south Asia and parts of Africa. A healthy nutrition transition that enhances access to nutritious foods is needed to address the remaining burden of underweight while curbing and reversing the increase in obesity.

Funding UK Medical Research Council, UK Research and Innovation (Research England), UK Research and Innovation (Innovate UK), and European Union.

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Introduction

Underweight and obesity are associated with adverse health outcomes throughout the life course. Therefore, optimal nutrition and health policies should address

both forms of malnutrition, as indicated by Sustainable Development Goal Target 2.2, which calls for ending “all forms of malnutrition”. Trends in underweight and obesity have varied substantially across countries and age



Lancet 2024; 403: 1027–50

Published Online
February 29, 2024
[https://doi.org/10.1016/S0140-6736\(23\)02750-2](https://doi.org/10.1016/S0140-6736(23)02750-2)

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*NCD-RisC members are listed at the end of the Article; affiliation details are provided in the appendix (pp 1–46)

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Credits +

One in eight people are now living with obesity

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**LINEE GUIDA DELLA SICOB SOCIETÀ ITALIANA DI
CHIRURGIA DELL'OBESITÀ E DELLE MALATTIE
METABOLICHE**

*La terapia chirurgica dell'obesità e delle complicanze
associate*



La seguente linea guida è stata sviluppata da **SICOB** in collaborazione con:

- ACOI:** Associazione Chirurghi Ospedalieri Italiani
- ADI:** Associazione Italiana di dietetica e nutrizione clinica
- AME:** Associazione Medici Endocrinologi
- ANSISA:** Associazione Nazionale Specialisti in Scienze dell'Alimentazione
- ASAND:** Associazione Scientifica Alimentazione Nutrizione e Dietetica
- SIC:** Società Italiana di Chirurgia
- SICE:** Società Italiana di Chirurgia Endoscopica e nuove tecnologie
- SID:** Società Italiana di Diabetologia
- SIO:** Società Italiana dell'Obesità
- SIEC:** Società Italiana Endocrinologia
- SIMG:** Società Italiana di Medicina Generale e delle Cure Primarie
- SIP:** Società Italiana di Pediatria
- SIUEC:** Società Italiana Unitaria di Endocrinochirurgia

L'obesità e le sue complicanze sono un problema di salute pubblica in crescita in molti Paesi, a causa dell'aumento della prevalenza, dell'impatto rilevante sulla salute degli individui affetti e del crescente peso economico correlato¹. I trattamenti per l'obesità che includono sia interventi sullo stile di vita che terapie farmacologiche, sono spesso caratterizzati da scarsa efficacia a lungo termine². La chirurgia metabolica/bariatrica, che è stata sviluppata per ottenere una perdita di peso rilevante nei pazienti morbosamente obesi, ha anche dimostrato di avere un potenziale curativo per condizioni legate all'obesità come il Diabete Mellito Tipo 2 (DM2)^{3,4} e la sindrome delle apnee ostruttive del sonno (OSAS)³. Tuttavia, l'utilizzo di approcci chirurgici è stato finora contenuto a causa di limitazioni organizzative ed economiche.

Review Article

Practical Recommendations of the Obesity Management Task Force of the European Association for the Study of Obesity for the Post-Bariatric Surgery Medical Management

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Bariatric surgery is today the most effective long-term therapy for the management of patients with severe obesity, and its use is recommended by the relevant guidelines of the management of obesity in adults. Bariatric surgery is in general safe and effective, but it can cause new clinical problems and is associated with specific diagnostic, preventive and therapeutic needs. For clinicians, the acquisition of special knowledge and skills is required in order to deliver appropriate and effective care to the post-bariatric patient. In the present recommen-



Editorial

Complications of bariatric surgery: Presentation and emergency management



A B S T R A C T

Keywords:
Emergencies
Complications
Obesity surgery
Vitamin D
Malnutrition

The epidemic in obesity has led to an increase in number of so called bariatric procedures. Doctors are less comfortable managing an obese patient after bariatric surgery. Peri-operative mortality is less than 1%. The specific feature in the obese patient is that the classical signs of peritoneal irritation are never present as there is no abdominal wall and therefore no guarding or rigidity. Simple post-operative tachycardia in obese patients should be taken seriously as it is a WARNING SIGNAL. The most common complication after surgery is peritonitis due to anastomotic fistula formation. This occurs typically as an early complication within the first 10 days post-operatively and has an incidence of 1–6% after gastric bypass and 3–7% after sleeve gastrectomy. Post-operative malnutrition is extremely rare after restrictive surgery (ring, sleeve gastrectomy) although may occur after malabsorptive surgery (bypass, biliary pancreatic shunt) and is due to the restriction and change in absorption. Prophylactic cholecystectomy is not routinely carried out during the same procedure as the bypass. Superior mesenteric vein thrombosis after bariatric surgery is a diagnosis which should be considered in the presence of any postoperative abdominal pain. Initially a first etiological assessment is performed (measurement of antithrombin III and of protein C and protein S, testing for activated protein C resistance). If the least doubt is present, a medical or surgical consultation should be requested with a specialist practitioner in the management of obese patients as death rates increase with delayed diagnosis.

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Obesity is an increasingly prevalent disease. Obesity surgery is no longer disputed in cases of severe obesity as this type of surgery in these patients not only achieves sustainable weight loss with an increase in life expectancy, but also a reduction in the comorbidities of obesity, particularly type 2 diabetes. For this reason the epidemic in obesity has led to an increase in number of so called bariatric procedures, surgery which is performed mostly laparoscopically (more than 30,000 procedures in France in 2011, increasing by 76% between 2009 and 2011). The result of this is an increase in consultation of patients who have undergone surgery to their general practitioner and to the emergency departments [1]. Doctors are already used to the emergency management of obesity related comorbidities such as decompensation of diabetes, flares of hypertension and respiratory failure, etc. On the other hand they are less comfortable managing an obese patient after bariatric surgery [2]. This management, however, is the same as in a non obese patient. This article is designed to make doctors aware of and familiar with these patients. There are currently two major types of surgical procedure validated by the H.A.S (French National Health Authority): restrictive procedures (an adjustable peri-gastric ring (sleeve gastrectomy), and malabsorptive procedures (gastric bypass), biliary pancreatic shunts). A choice of technique is based on patient preference, the patient's past history, eating behaviour and anatomy.

Average hospital obesity stays followings surgery are currently a week, approximately 9% of patients developing respiratory complications, 4% developing problems with an anastomotic fistulae and 6% requiring revision surgery. Peri-operative mortality is less than 1%.

1. Tachycardia

Simple post-operative tachycardia in obese patients should be taken seriously as it is a WARNING SIGNAL. The most common cause is dehydration, although pulmonary embolism or a surgical complication such as an anastomotic fistula should always be considered [3]. For this reason it is now conventional to say that "a tachycardia of over 120 beats per minute in an indication for surgical exploration unless proof to the contrary". To recall, two cases of post-operative thyrotoxicosis causing tachycardia have been described [4].

2. Surgical complications

The most common complication after surgery is peritonitis due to anastomotic fistula formation. This occurs typically as an early complication within the first 10 days post-operatively and has an

COSA SI DEVE FARE IN PS ?

Stabilizzazione clinica
Percorso diagnostico-terapeutico
Ricovero nel setting appropriato

Chirurgia bariatrica + 300% 2012-2022

Table 1

Postoperative complications.

Intraoperative	Perioperative	Late
Splenic injury (0.41%)	<ul style="list-style-type: none"> • Anastomotic leak (1%) • Gastrointestinal bleeding (2.5%) • Trocar injury (0.1%) • Deep vein thrombosis (1%) • Pulmonary embolism (0.5%) • Bowel obstruction (1.7%) • Wound infection (3%) • Pneumonia (0.2%) • Cardiac event Mortality (0.2%–1%) 	<ul style="list-style-type: none"> • Anastomotic stricture (3%–12%) • Marginal ulcer (0.5%–20%) • Bowel obstruction (2.5%) • Incisional hernia (0.5%–8%) • Internal hernia (1%–3%) • Dumping syndrome (up to 30%) • Cholecystitis (up to 30%)

Surgery Complications

- Fistula
- Bleeding
- Herniation
- Anastomotic stenosis
- Gastric erosion
- Intestinal small bowel obstructions

Attenzione alla Fistola !!!

incidence of 1–6% [5,6] after gastric bypass and 5–7% after sleeve gastrectomy. The specific feature in the obese patient is that the classical signs of peritoneal irritation are never present as there is no abdominal wall and therefore no guarding or rigidity. It is important to examine the non-specific signs which should nevertheless raise alert: a spike of fever, abdominal heaviness, hiccups, tachycardia and acute urinary retention. A surgical consultation is required if the least suspicion is present. Undiagnosed, fistula results in sepsis which itself can cause acute renal and respiratory failure.

Original Article

Gastrobronchial Fistula as a Complication of Bariatric Surgery: A Series of 6 Cases

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Key Words

Morbid obesity · Laparoscopic sleeve gastrectomy · Roux en Y gastric bypass · Gastric leak · Gastrobronchial fistula

Abstract

Objective: To present a multicenter series of 6 patients who developed gastrobronchial fistula (GBF). GBF is a rare subtype of gastric leaks following bariatric surgery, which is the mainstay of treatment for the obesity pandemic. **Methods:** We retrospectively identified 6 patients with GBF (out of 2,308 cases performed: 0.2%). One patient had undergone Roux-en-Y gastric bypass, and 5 had a sleeve gastrectomy. Demographics, previous surgeries, clinical presentation, timing of fistula diagnosis, diagnostic and treatment measures employed, and outcome were collected. **Results:** Four patients were female, the average age and BMI were 42 years and 42.5 kg/m², respectively. Three patients had previous surgeries (Nissen fundoplication, adjustable gastric banding, and vertical banded gastroplasty). Median time to fistula diagnosis was 40 days (range 15–90 days). Clinical presentation included chronic cough, hemoptysis, dyspnea and fever as well as persistent left pleural effusion or pneumonia. Diagnosis was confirmed by computed tomography in all cases. Two patients were treated nonoperatively, while 4 eventually required surgery for resolution. Left lower lobectomy was necessary in 3 of 4 cases. Concomitant procedures were total gastrectomy in 2 cases and conversion of a sleeve to a gastric bypass in 1 case. Resolution occurred 30 days to 2 years after initial surgery. No mortalities were encountered. **Conclusions:** GBF is a rare but devastating complication following bariatric surgery. It may develop as a late complication of a chronic upper gastric leak. Surgery is curative although nonoperative management may be warranted in selected cases.

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- Alto indice di sospetto diagnostico in Pronto Soccorso
- Approccio Multidisciplinare
- Radiologo
- Chirurgo generale
- Ritardo diagnostico ed outcome

Tachicardia

Tachipnea

Picco febbrile singhiozzo

Singhiozzo

Ritenzione acuta d'urina

Insufficienza renale

Insufficienza respiratoria

Sepsi

Pulmonary complications

- Deep vein thrombosis and pulmonary embolism
- Post operative pneumonia

- Post-operative pneumonia

Post-operative pneumonia is rare (<1%) as patients are mobilised early and laparoscopy causes less respiratory disturbance. Early post-operative pneumonia should suggest a surgical complication and be investigated by computed tomography [17].

- Hepato-biliary complications

5. Hepato-biliary complications

Gallstones are more common in obese people and appear to be accentuated after bariatric surgery (3–30%). For this reason, urso-deoxycholic acid is often prescribed post-operatively (for 6 months)

- Gastrointestinal complications
- Nutritional complications
- Neurologic complications

7. Neurological complications

These occur in approximately 4% of patients after bariatric surgery and may develop 3–20 months after surgery [29]. They appear to be increased in patients with repetitive vomiting. They are characterised by neuropathy, myopathy and encephalopathy [30]. Vitamin B1 (Thiamine deficiency) is usually the cause of these neurological problems. Wernicke's encephalopathy which is characterised by the triad of inattention, ataxia and ophthalmoplegia, may develop late after surgery [31] and is a medical emergency.

Conclusioni

- Alto indice di sospetto nei pazienti già sottoposti a chirurgia bariatrica
- Approccio multidisciplinare Medico Emergenza Urgenza , Radiologo, Chirurgo generale , Intensivista, Endoscopista, Radiologo intervenzista, Chirurgo dedicato
- ASL Romagna 4 DEA in Ospedali Polispecialistici e 3 DEA in Ospedali distrettuali
- **CONOSCENZE E COMPETENZE**
- Rete aziendale
- Presa in carico
- E il paziente operato in altra sede ...?

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