

Minimally Invasive and Novel Therapeutics (M.I.N.T.) in Foregut Disease
September 29th -October 1st 2022

Bariatric Surgery in Very Complex Hernias: -Is it worth it?

Fernando Ferreira, MD, Upper GI Surgery
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Institution: PEDRO HISPANO HOSPITAL (ULSM)
Institution: CUF PORTO HOSPITAL PORTUGAL

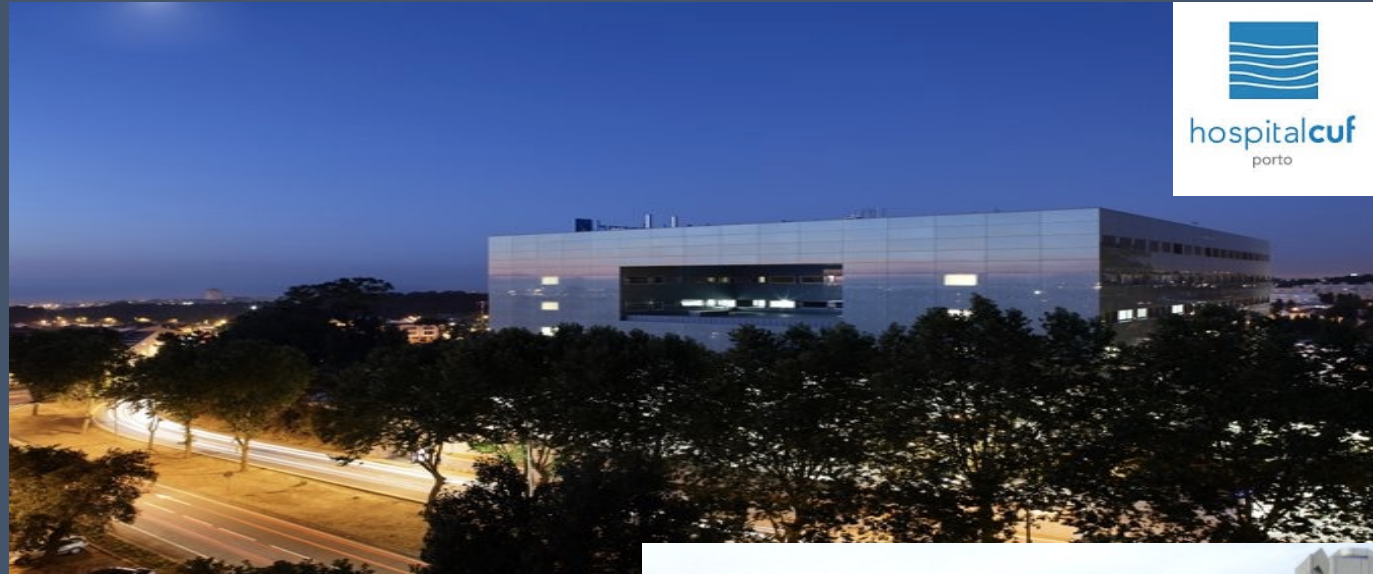


Bariatric Surgery in Very Complex Hernias: Is it worth it?

DISCLOSURES

Consulted by:

- BD
- Smith & Nephew
- Medtronic
- Grünenthal
- Dipromed
- Baxter



Bariatric Surgery in Very Complex Hernias: Is it worth it?

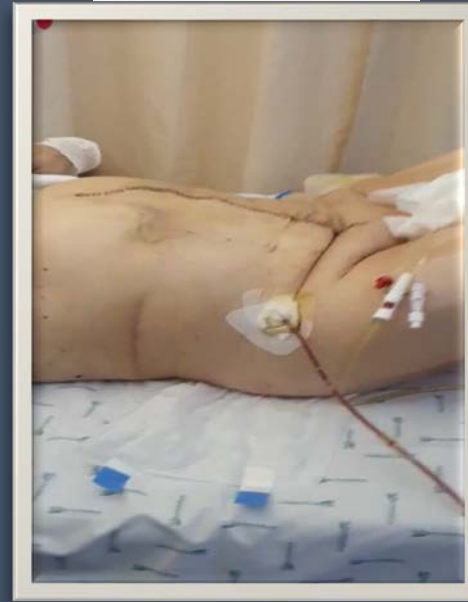
Over the last 10 years a paradigm shift towards hernia repair has occurred:

- Functional hernia repair is the key to quality of life and self-esteem – **AWR!**
- Greater focus towards modifying risk factors – **OBESITY!**
- Inoperable hernias are becoming less frequent – **Sharing of KNOWLEDGE!**

Pre-op.



36 hrs Post-op.



1 Year Post-op.



Authorized
photos &
video

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Some authors
have reported
80% recurrence rates
without
AWR techniques

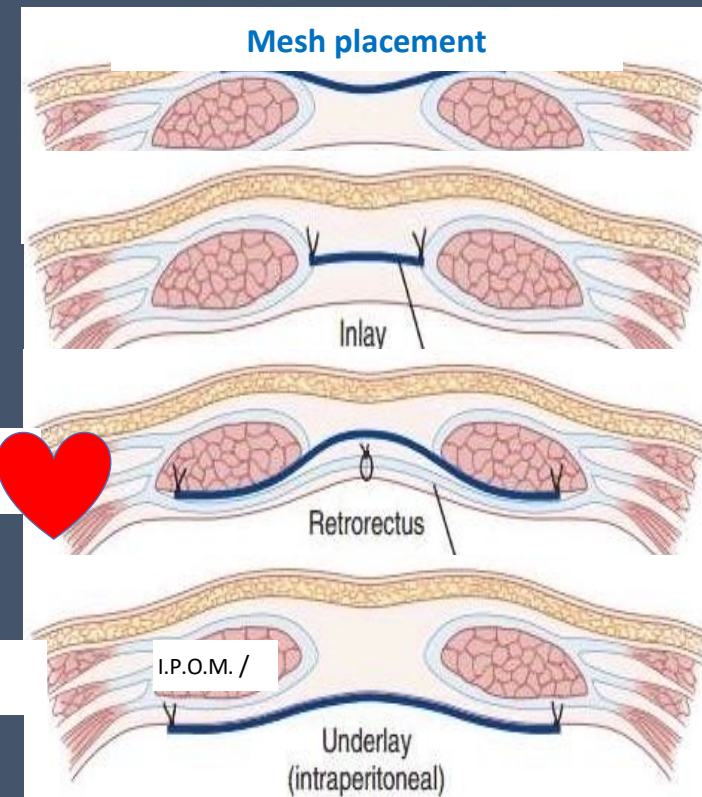
Holihan et al.; Ventral hernia: Patient selection, treatment, and management; Current Problems in Surgery 53 (2016) 307–354.

• Recurrence **15%**

• Recurrence **44%**

• Recurrence **0-1,7%**

• Recurrence **3,4-15%**



Bariatric Surgery in Very Complex Hernias: Is it worth it?

< 2 cm defects

- Suture Repair

2 - 5 cm defects

- Pre-peritoneal mesh

5 – 10 cm

- **Rives-Stoppa-Wantz (+/- Botox)**

> 10 cm

- **Anterior Component Separation**
- Videoassisted Anterior Component Separation

+/-
Botox
+/-
PPP

- **Transverse Abdominis Release (T.A.R.)**
- **eTEP Rives Stoppa Wantz / eT.A.R.**
- Component Separation + Sandwich Technique (CS + ST)
- Voeller Technique + NPWT (difer skin closure) +/- Fibrin glue
- **Robotics (In Progress at different rates)**



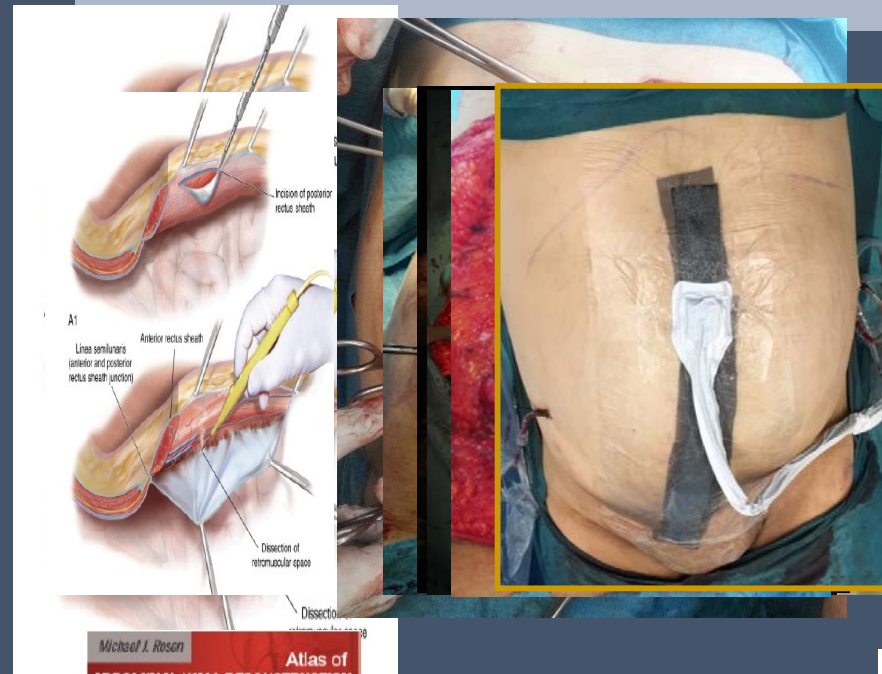
**AWR techniques
(Preferred)**

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Hernias 5 - 10 cm central abdomen

Hernias < 10 cm

Rives-Stoppa-Wantz (Gold standard – Not a COMPONENT SEPARATION)

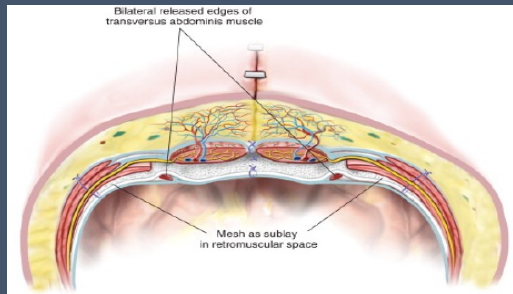


Authorized photos of patients

Bariatric Surgery in Very Complex Hernias: Is it worth it?

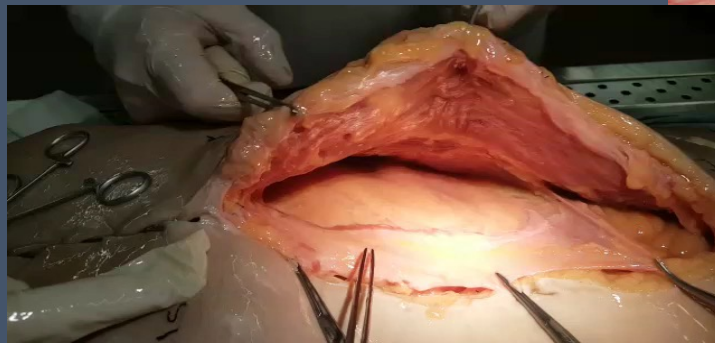
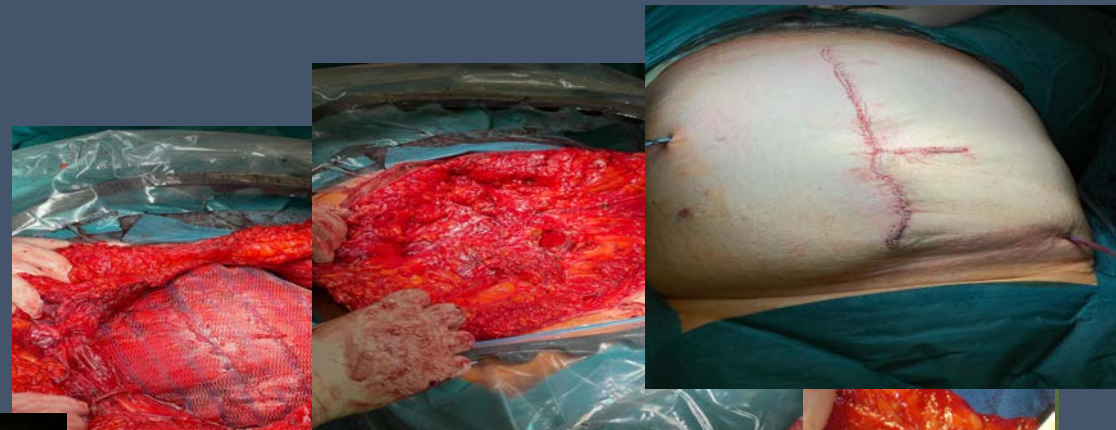
Transverse Abdominis Release (TAR)

Hernias > 10 cm and/or flank

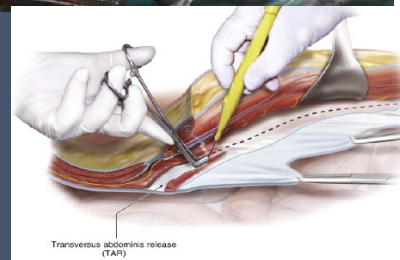


Michael J. Rosen
Atlas of
ABDOMINAL WALL RECONSTRUCTION

Drawings from AWR Atlas



Video from Cadaver Lab Porto - Fernando Ferreira



Drawings from AWR Atlas



Bariatric Surgery in Very Complex Hernias: Is it worth it?

- Technical aspects component separation

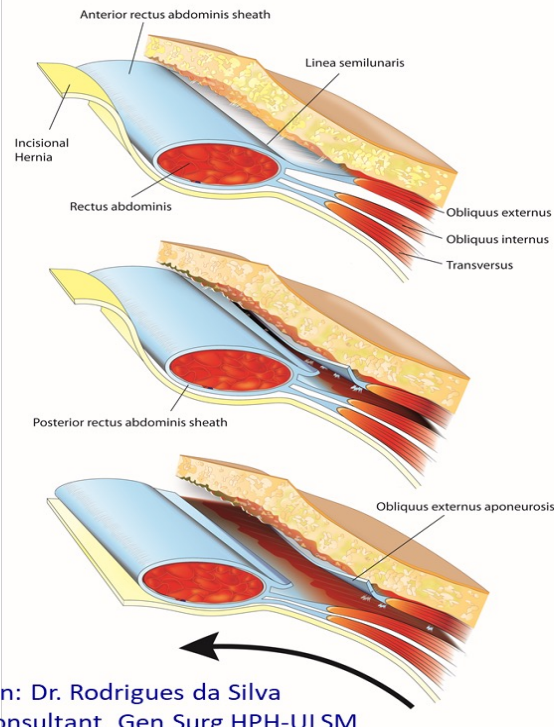


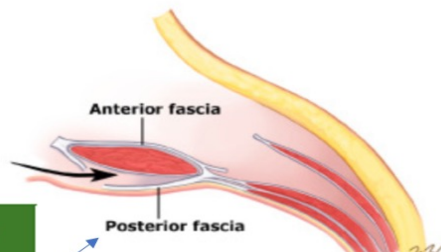
Illustration: Dr. Rodrigues da Silva
Senior Consultant Gen Surg HPH-ULSM

OPEN Anterior Component Separation

- Advances on each side:
- 3 to 5 cm epigastric
 - 7 to 10 cm mesogastric
 - 1 to 3 cm hipogastric

Gain (in cm) on each side after transection of the external oblique muscle and aponeurosis		
	Without release of the posterior rectus sheath (cm)	With release of the posterior rectus sheath (cm)
Upper abdomen	3-5	4-7
Waistline	7-10	9-14
Lower abdomen	1-3	2-5

Plane of dissection between rectus abdominis muscle and posterior fascia

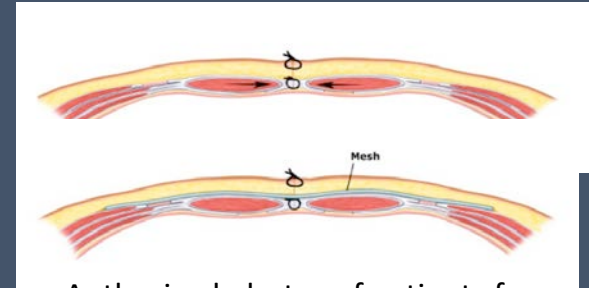
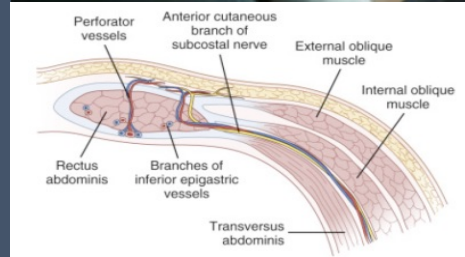
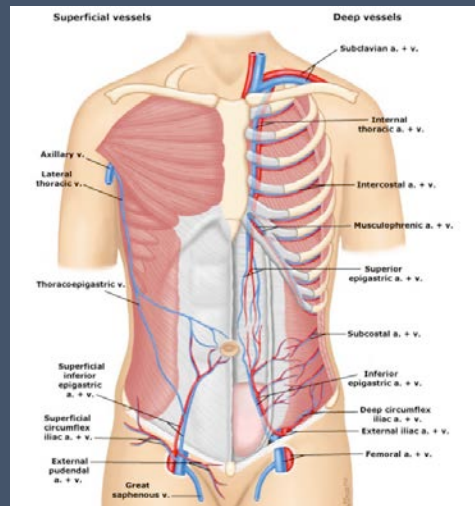


Vries Reilingh

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Open Component Separation

- Technical aspects component separation



Authorized photos of patients from Pedro Hispano Hospital



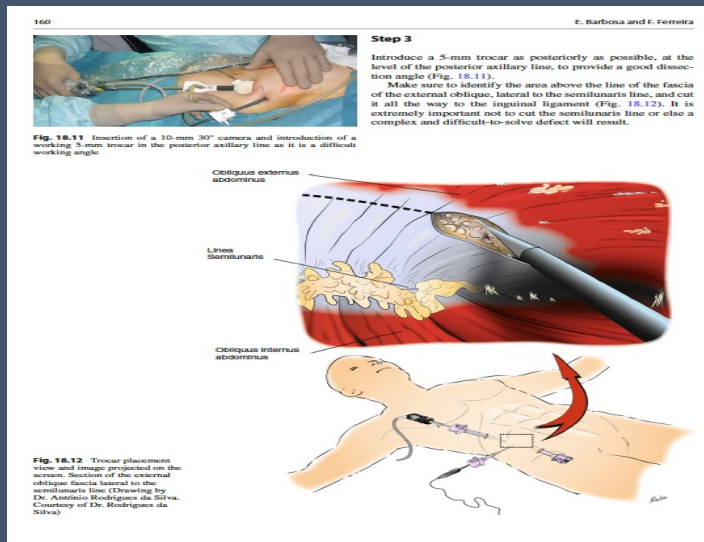
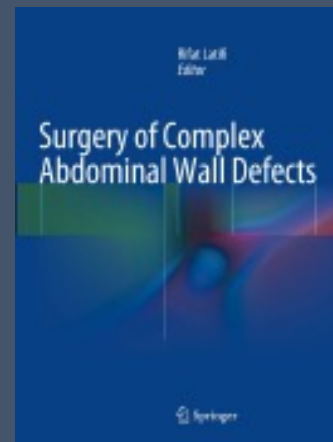
Preserve perforators to avoid skin ischemia
Cut the ext oblique fascia 1 cm lateral
to the semilunar line

Ramirez OM, Ruas E, Dellon AL. "Components separation" method for closure of abdominal-wall defects: an anatomic and clinical study. *Plast Reconstr Surg.* 1990;86(3):519-26.

Bariatric Surgery in Very Complex Hernias: Is it worth it?

- Technical aspects component separation

Video-assisted Component Separation



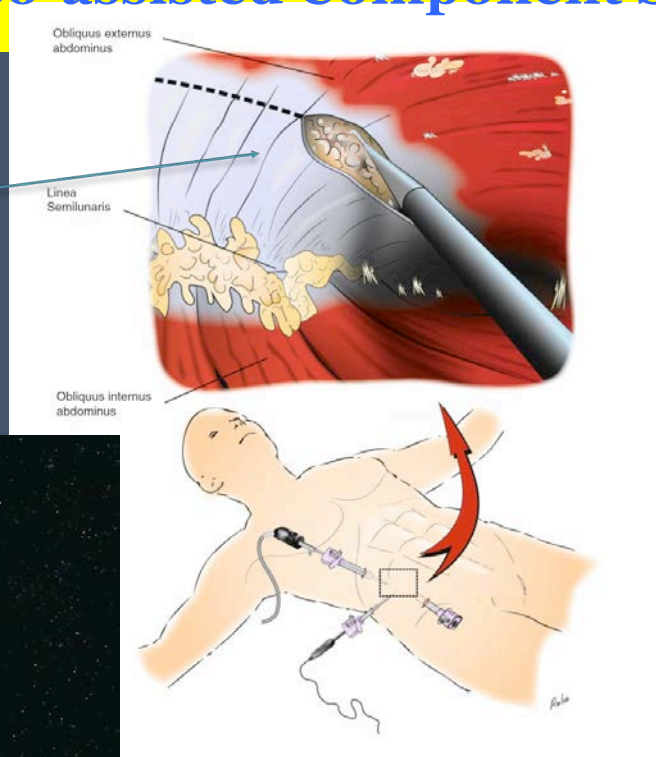
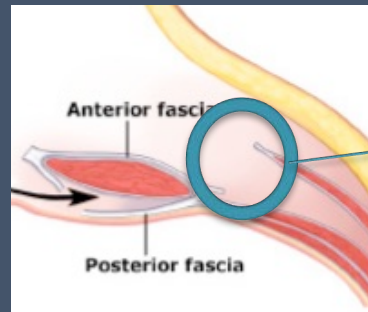
E. Barbosa and F. Ferreira.
Minimally Invasive Component Separation in the Repair of Large Abdominal Wall Defects

R. Latifi (ed.), Surgery of Complex Abdominal Wall Defects, © Springer New York 2017 ,

Bariatric Surgery in Very Complex Hernias: Is it worth it?

- Technical aspects component separation

Video-assisted Component Separation



Bariatric Surgery in Very Complex Hernias: Is it worth it?

Extraperitoneal Laparoscopic Transverse Abdominis Release (eTAR)

Patient with flank hernia+umbilical hernia+2 inguinal hernias



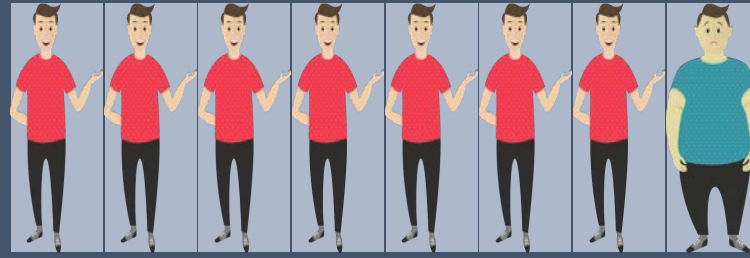
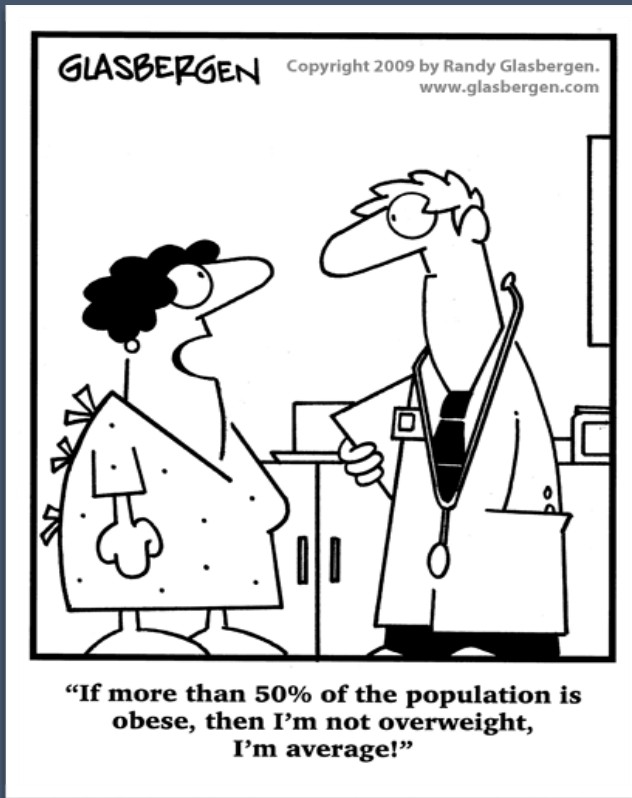
Authorized photos + videos of patient

Bariatric Surgery in Very Complex Hernias: Is it worth it?

❑ The Obesity Factor in AWR



> 1500 million affected

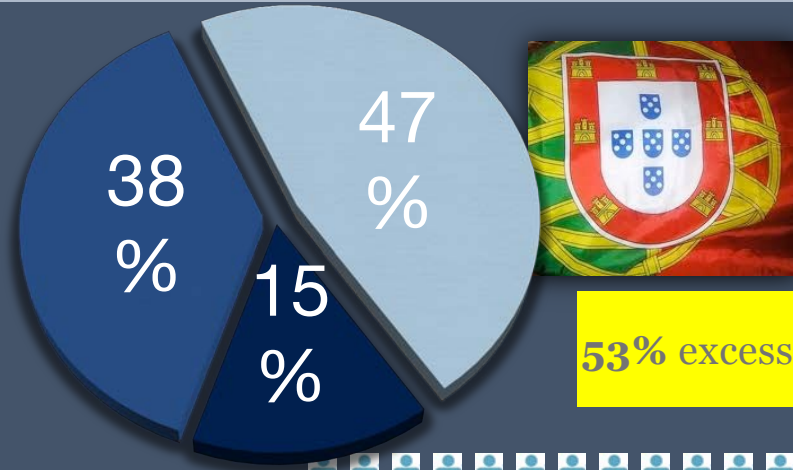


5% spent on Health
Co-morbidities
↓ quality of life
↓ life expectancy



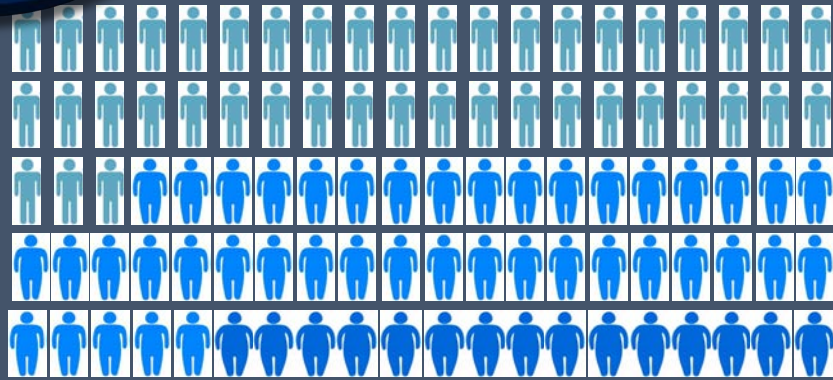
Bariatric Surgery in Very Complex Hernias: Is it worth it?

❑ The Obesity Factor in AWR



~ **1 000** million € / year

53% excess weight / obese



DGS 2018, Portuguese National Health System Stats

EUROPE'S OBESITY LEAGUE

Prevalence of obesity among population aged 15 and over

Hungary	28.5%	Finland	15.8%
United Kingdom	24.7%	Cyprus	15.6%
Ireland	23.0%	Portugal	15.4%
Luxembourg	23.0%	Germany	14.7%
Malta	22.9%	France	14.5%
Czech Republic	21.0%	Belgium	13.8%
Greece	19.6%	Denmark	13.4%
Estonia	19.0%	Austria	12.4%
Slovenia	18.3%	Netherlands	12.0%
Latvia	16.9%	Sweden	11.8%
Slovakia	16.9%	Bulgaria	11.5%
Spain	16.6%	Italy	10.4%
Poland	15.8%	Romania	7.9%

Source: OECD Health At A Glance Europe 2014. Data collected in 2012

Bariatric Surgery in Very Complex Hernias: Is it worth it?

❑ The Obesity Factor in AWR

IAP
Just lying down

BMI 25 kg/m² - 0-6mmHg
BMI 40 kg/m² - 9-14mmHg

↑1 kg/m² BMI → ↑0.14 mmHg

Wilson A, Longhi J, Goldman C, McNatt S. J Trauma. 2010 Jul;69(1):78-83
What is normal intra-abdominal pressure and how is it affected...
March 2009 Intensive Care Medicine 35(6):969-76



Bariatric Surgery in Very Complex Hernias: Is it worth it?



One of the most common operations performed by general surgeons, with 350,000 ventral and 800,000 inguinal

[Surg Obes Relat Dis.](#) 2018 Sep;14(9):1221-1232. doi: 10.1016/j.soard.2018.07.005. Epub 2018 Jul 19.

American Society for Metabolic and Bariatric Surgery and American Hernia Society consensus guideline on bariatric surgery and hernia surgery.

Menzo EL¹, Hinojosa M², Carbonell A³, Krpata D⁴, Carter J⁵, Rogers AM⁶.

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Hernia (2022) 26:715–726
<https://doi.org/10.1007/s10029-022-02573-2>

REVIEW



The European Hernia Society Prehabilitation Project: a systematic review of patient prehabilitation prior to ventral hernia surgery

K. K. Jensen¹ · B. East² · B. Jisova² · M. López Cano³ · G. Cavallaro⁴ · L. N. Jørgensen¹ · V. Rodrigues³ · C. Stabilini^{5,6} · D. Wouters⁷ · F. Berrevoet⁷

Abstract

Background Ventral hernia repair is one of the most commonly performed surgical procedures worldwide. To reduce the risk of complications, patient prehabilitation has received increasing focus in recent years. To assess prehabilitation measures, this European Hernia Society endorsed project was launched. The aim of this systematic review was to evaluate the current literature on patient prehabilitation prior to ventral hernia repair.

Methods The strategies examined were optimization of renal disease, obesity, nutrition, physical exercise, COPD, diabetes and smoking cessation. For each topic, a separate literature search was conducted, allowing for seven different sub-reviews.

Results A limited amount of well-conducted research studies evaluating prehabilitation prior to ventral hernia surgery was found. The primary findings showed that smoking cessation and weight loss for obese patients led to reduced risks of complications after abdominal wall reconstruction.

Conclusion Prehabilitation prior to ventral hernia repair may be widely used; however, the literature supporting its use is limited. Future studies evaluating the impact of prehabilitation before ventral hernia surgery are warranted.



Bariatric Surgery in Very Complex Hernias: Is it worth it?

□ The Obesity Factor in AWR

- One consistent finding in the majority of the literature: **obesity contributes significantly to the incidence of AWH.**
- NSQIP: ~ **60%** of patients undergoing **VHR** in the United States had a **BMI >30** kg/m².
- 4305 consecutive patients undergoing abdominal surgery → BMI >25 kg/m² was the 2nd greatest contributor to development of an IH (SSI being 1st)
- Largest series examining hernia risk after abdominal surgery:
 - 12,373 patients (gastrointestinal or gynecologic surgery).
 - **BMI > 30** kg/m² → ~ **2-fold** increase in the **risk** of developing an IH
- Patients with obesity are more likely to present with an incarcerated AWH (increasing the likelihood of emergent operation).

Surg Obes Relat Dis. 2018 Sep;14(9):1221-1232. doi: 10.1016/j.soard.2018.07.005. Epub 2018 Jul 19.

American Society for Metabolic and Bariatric Surgery and American Hernia Society consensus guideline on bariatric surgery and hernia surgery.

Menzo EL¹, Hinojosa M², Carbonell A³, Krpata D⁴, Carter J⁵, Rogers AM⁶.

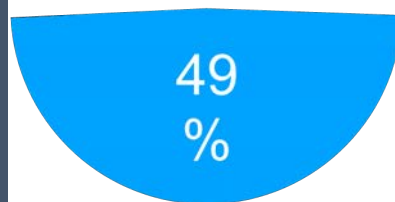
Bariatric Surgery in Very Complex Hernias: Is it worth it?

❑ The Obesity Factor in AWR

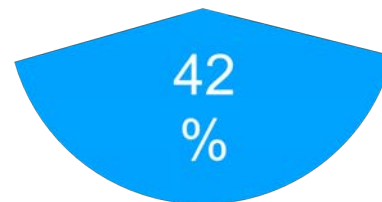
- **BMI >28 kg/m²** → higher rate of recurrence
- **>90% of patients with recurrence have BMI > 30**

- Obesity → **risk factor** for development of primary as well as **incisional hernia**.
- Obese individuals → more likely to have **comorbidities**, which significantly increase the peri-operative risks.
- Increased Costs → **increased risk for re-admissions, blood transfusion, hospital acquired infections, wound healing issues and surgical site infections**

Wound Complication



Recurrence rates



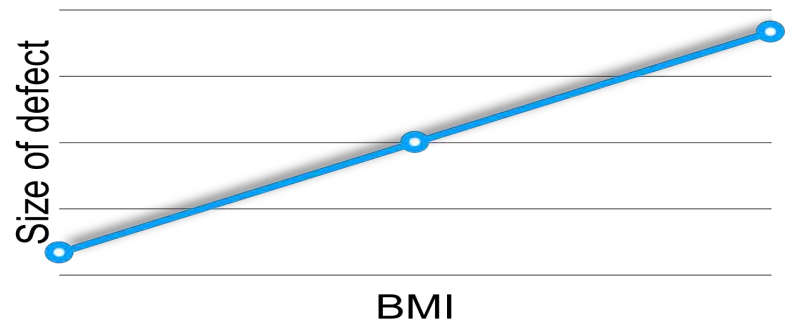
Surg Obes Relat Dis. 2018 Sep;14(9):1221-1232. doi: 10.1016/j.soard.2018.07.005. Epub 2018 Jul 19.

**American Society for Metabolic and Bariatric Surgery and American Hernia Society
consensus guideline on bariatric surgery and hernia surgery.**

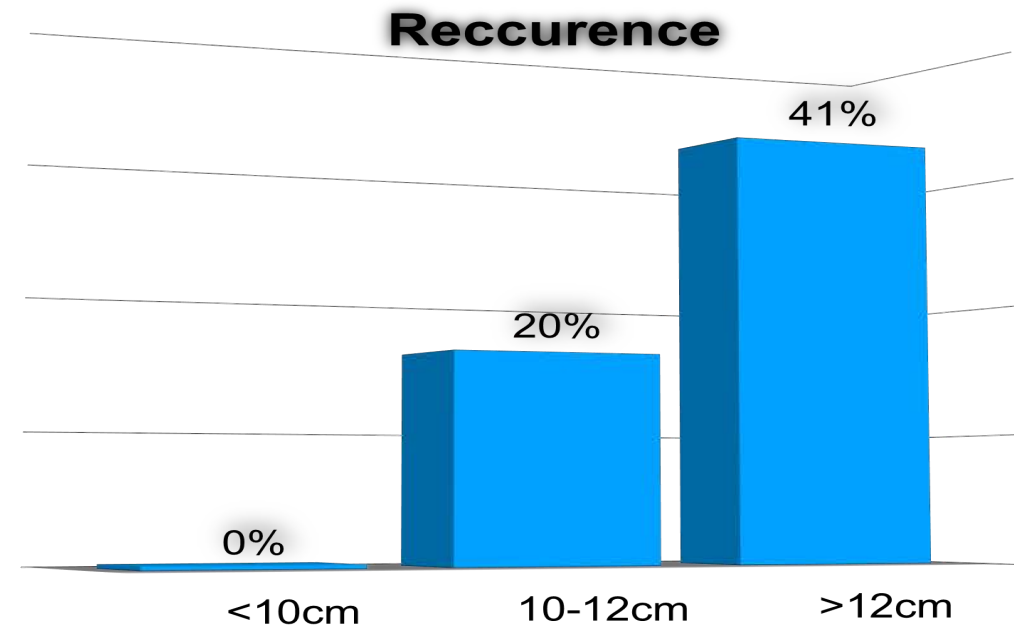
Menzo EL¹, Hinojosa M², Carbonell A³, Krpata D⁴, Carter J⁵, Rogers AM⁶.

Bariatric Surgery in Very Complex Hernias: Is it worth it?

BMI and Ventral Hernias



"In obese patients with hernia always expect the abdominal wall defect size to be larger than what is clinically apparent."



Moreno-Egea A, Baena EG, Calle MC, et al. Controversies in the Current Management of Lumbar Hernia. Arch Surg 2007;142:82-8.

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Visceral Medicine

Review Article

Visc Med 2021;37:246–253
DOI: 10.1159/000516047

Received: January 27, 2021
Accepted: March 22, 2021
Published online: April 28, 2021

Ulrich A. Dietz^a Omar Yusef Kudsi^b Fahri Gokcal^b Naseem Bou-Ayash^b
Urs Pfefferkorn^{a,c} Gottfried Rudofsky^{b,c} Johannes Baur^a Armin Wiegering^d

Excess Body Weight and Abdominal Hernia

choice. Untreated hernias carry the risk of small bowel obstruction after the bariatric procedure [13]. Therefore, if there is vascularized greater omentum in the hernia gap, it should not be removed. If hernia contents are reduced during bariatric surgery, it is recommended to close the gap, either with suture (orifices <2 cm) or mesh [12, 14]. Hernia repair after bariatric operation should be postponed until the catabolic phase of weight loss is over. This is usually reached after 9–12 months and indicated by a stable weight and sufficiently substituted micronutrients. Cases of symptomatic incisional hernias after bariatric procedure complicated by peritonitis and persistent obesity need to be addressed in an individualized manner.

PRE-CONGRESS COURSE | X JORNADAS INTERNACIONAIS DE CIRURGIA INTERNATIONAL MEETING OF SURGERY

INTERNATIONAL MASTERCLASS ON ABDOMINAL WALL RECONSTRUCTION

Abdominal Catastrophes: Efficient control and successful reconstruction

25TH • 26TH MARCH 2022

COURSE LOCATION: COIMBRA UNIVERSITY CENTRE (CHUC)
COIMBRA BIOMEDIC SIMULATION CENTRE
COIMBRA, PORTUGAL

COURSE DIRECTOR

FERNANDO FERREIRA, MD
Pedro Hispano Hospital, Matosinhos – Porto



+ 1 CET



Bariatric Surgery in Very Complex Hernias: Is it worth it?

□ The Obesity Factor in AWR

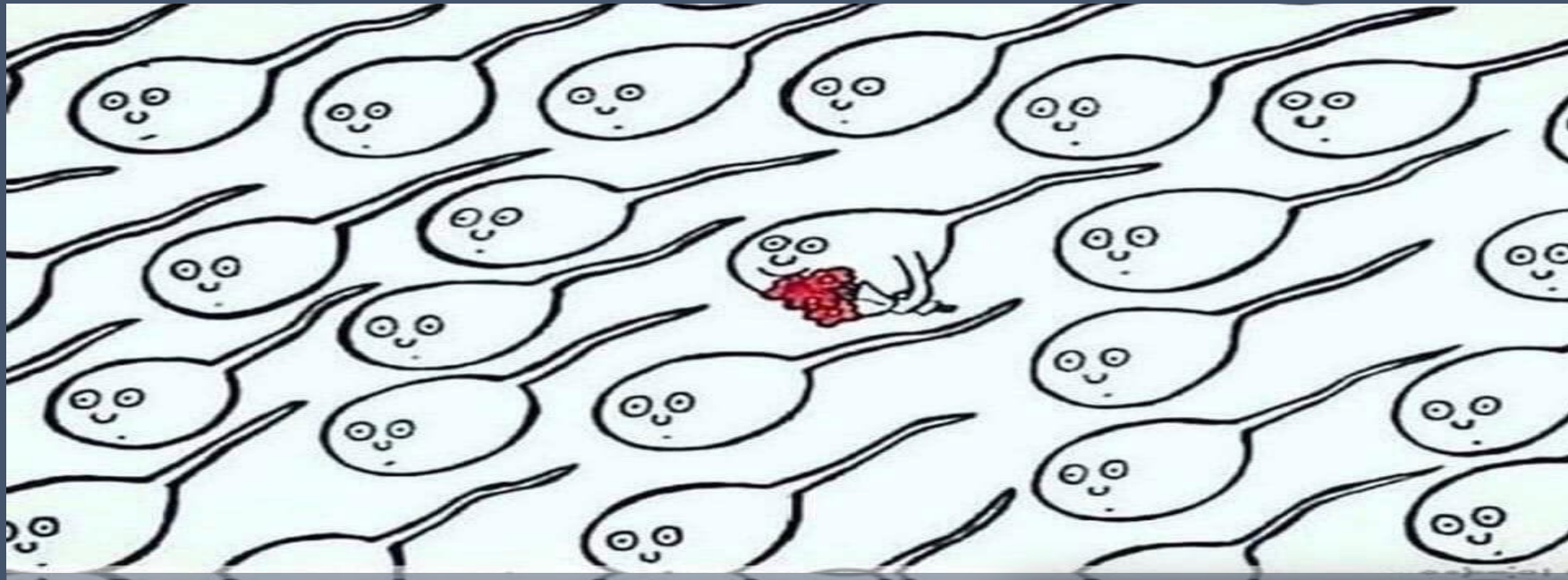
Watch & Wait? Diet? Exercise? Operate?



Authorized photos of patients

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Everyone has a dream but...



Not everyone has a PLAN

Bariatric Surgery in Very Complex Hernias: Is it worth it?

- Most studies of hernia repair in patients with obesity are **small-to-moderate size retrospective series**.
- Methodology is **heterogenous**
- Different **approaches** (open vs. laparoscopic)
- Multiple hernia repair **techniques** (primary tissue repairs, onlay, underlay and component separation mesh techniques),
- Permanent Vs. Long-term absorbable Vs. Hybrid Vs. Biologic **mesh**,
- Different **types** of hernias (primary, recurrent, simple or complex),
- Different hernia **sizes** and **locations**.
- **It is not possible, therefore, to make definitive recommendations** on the ideal repair technique for patients with obesity, or to determine the ideal BMI at which to perform such an operation.

[Surg Obes Relat Dis.](#) 2018 Sep;14(9):1221-1232. doi: 10.1016/j.soard.2018.07.005. Epub 2018 Jul 19.

American Society for Metabolic and Bariatric Surgery and American Hernia Society consensus guideline on bariatric surgery and hernia surgery.

Menzo EL¹, Hinojosa M², Carbonell A³, Krpata D⁴, Carter J⁵, Rogers AM⁶.

Bariatric Surgery in Very Complex Hernias: Is it worth it?

□ The Obesity Factor in AWR

To WAIT or not to wait?...

Southwestern Surgical Congress The American Journal of Surgery (2016) 212, 1068-1075

Impact of obesity on postoperative 30-day outcomes in emergent open ventral hernia repairs

Mary M. Mrdutt, M.D., Yolanda Munoz-Maldonado, Ph.D.,
Justin L. Regner, M.D., F.A.C.S.*

Division of Trauma and Acute Care Surgery, Department of Surgery, Baylor Scott & White Health,
South 31st Street, Temple, TX 76508, USA

- ▶ Obese → ↑ emergent VHRs (55.8% vs 68.9%)
- ▶ Complication 2x for emergent group (7% vs 14%)
- ▶ Complication increased with BMI (class III OR: 4.0)

Recently, Verhelst et al¹⁰ demonstrated a cross over rate from watchful waiting to operative management of 33%, with the 25% of patients requiring emergent surgical management experiencing increased morbidity (intraoperative perforations and fistulas) and mortality. Likewise, our data suggest the risk of complications associated with emergency VHR exceed those of obesity, diabetes, and smoking in elective VHR cohort with respect to SSOs (Table 4). Given the increased burden associated with obesity and emergent VHR, risk of emergent surgery requires attention when recommending watchful waiting. In addition, delaying VH surgery for successful pre-operative optimization and lifestyle modification for weight reduction may be an unfair expectation given the body of bariatric literature confirming obesity as a terminal illness best treated with surgery.²² Meanwhile, preoperative weight loss may not aid in minimizing hernia recurrence.²³ Finally, although long-term postoperative QOL and chronic pain questions remain unanswered,^{24,25} nonoperative management is associated with worse QOL scores.¹⁶ Rather than default to watchful weighting in obese VH patients, we propose upfront elective VHRs repair in obese patients and encourage use of laparoscopic techniques¹⁸ that can acquire fascial approximation²⁶ and provide equivalent long-term QOL and pain.²⁷

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Obesity and Ventral Hernia Repair: Is There Success in Staging?

Eric Veilleux, MD and Rami Lutfi, MD, FACS, FASMBS

OBESITY AND VENTRAL HERNIA REPAIR

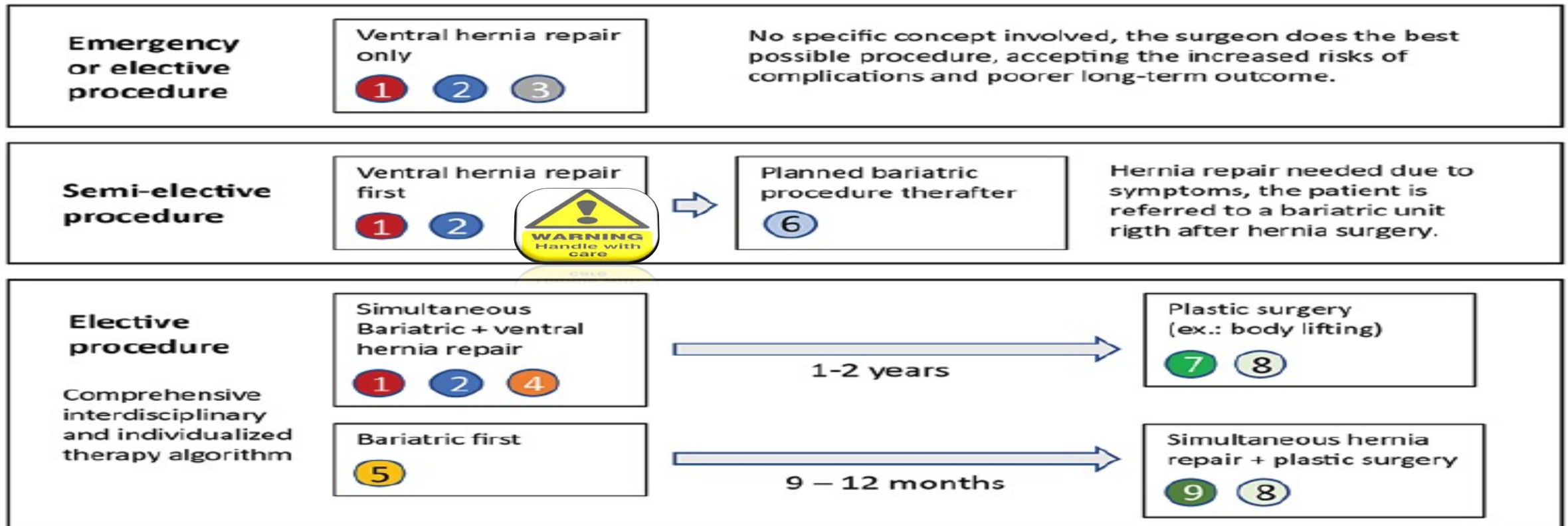
space is even further decreased due to the significant amount of visceral fat found in obese patients. Weight loss before VHR has been shown to not only increase the success of repair but also decrease the overall hospital costs.^{22,25} Patients may also avoid extensive component separation that is often required to medialize the fascia in obese patients with loss of domain; potentially avoiding further weakness of the abdominal wall, complications from flap necrosis, or wound infection.^{20,24,25}

JOURNAL OF LAPAROENDOSCOPIC & ADVANCED SURGICAL TECHNIQUES
Volume 00, Number 00, 2020
© Mary Ann Liebert, Inc.
DOI: 10.1089/lap.2020.0265



Bariatric Surgery in Very Complex Hernias: Is it worth it?

Management of ventral hernias in obese patients



- (1) Increased risk of SSI (significant)
- (2) Increased incidence of recurrence (significant) and mesh failure
- (3) Permanent risk of metabolic disease a
- (4) Increased risk of mesh infection
- (5) Increased risk of hernia accident rate (risk rate unknown)
- (6) Impaired access to abdominal cavity due to previous mesh repair
- (7) Reduced risk of SSI (significant)
- (8) Resolution of metabolic disease achieved (significant)
- (9) Low risk of SSI and normal incidence of recurrence (significant)

Dietz et al.

Visc Med 2021;37:246–253
DOI: 10.1159/000516047

Bariatric Surgery in Very Complex Hernias: Is it worth it?

CASE Example

Emergency or elective procedure

Ventral hernia repair only



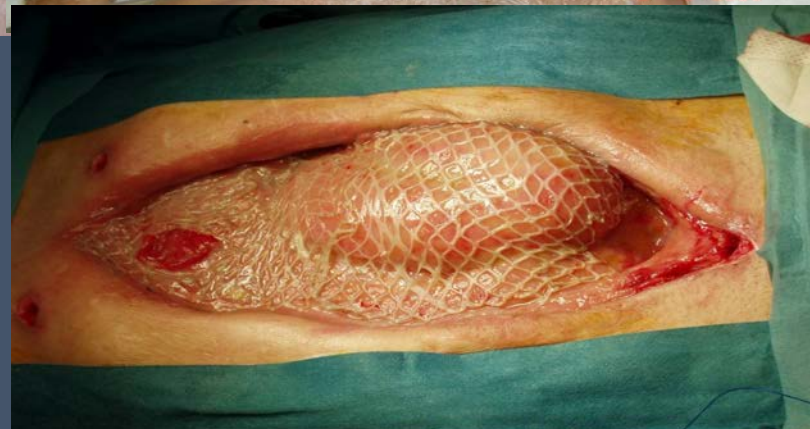
No specific concept involved, the surgeon does the best possible procedure, accepting the increased risks of complications and poorer long-term outcome.



Severe peritonitis patient treated at Pedro Hispano Hospital, ULS Matosinhos authorized photos

In just 12 days...

STSG graft



Bariatric Surgery in Very Complex Hernias: Is it worth it?

CASE Example

Semi-elective procedure

Ventral hernia repair first

1

2



Planned bariatric procedure thereafter

6

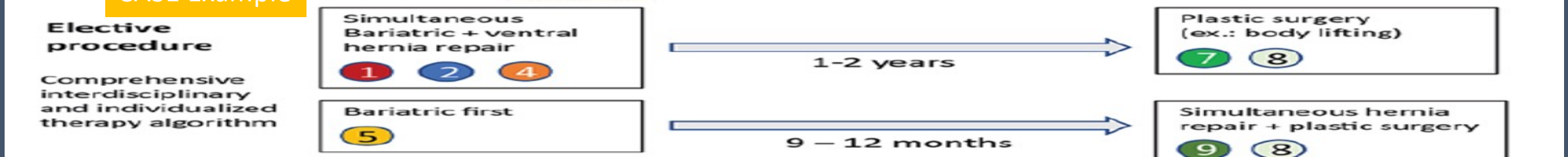
Hernia repair needed due to symptoms, the patient is referred to a bariatric unit right after hernia surgery.



BMI of 48 -> 40 with a gastric sleeve
Developed episodes of bowel incarceration + pain ... No time for a Bypass
Bilateral TAR + Paniclectomy (5,8 kg)

Bariatric Surgery in Very Complex Hernias: Is it worth it?

CASE Example

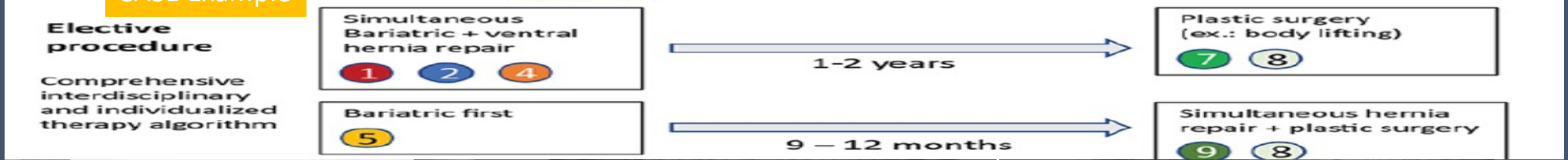


Authorized photos

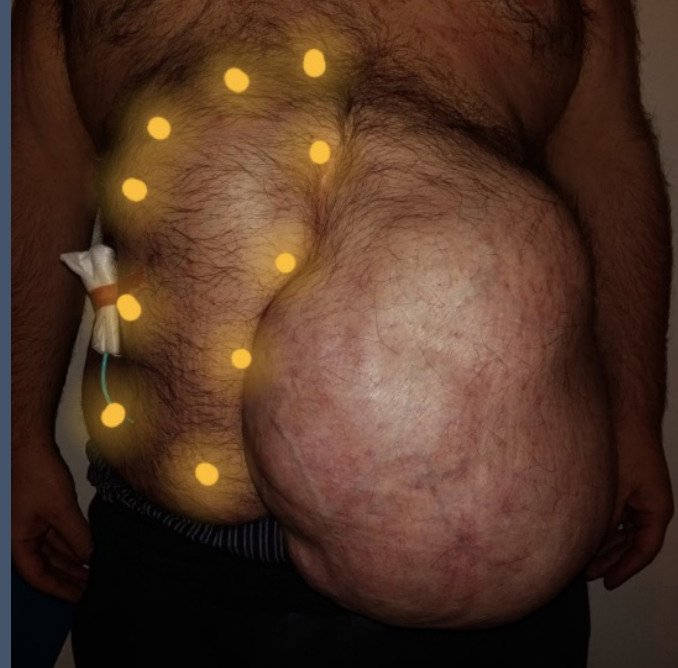
BMI - 39,3 -> 35 Nutritional program + IGB (5 x recurrence)
Surgery: Gastric Sleeve + Bilateral TAR

Bariatric Surgery in Very Complex Hernias: Is it worth it?

CASE Example



Authorized photos from a patient at CUF Porto Hospital



BMI - 43 -> 30.2 after Gastric Sleeve + Nutritional program + BTA + PPP

Surgery: Bilateral TAR (2 x recurrence)

Bariatric Surgery in Very Complex Hernias: Is it worth it?

BAD CANDIDATES FOR SINGLE STAGE SURGERY

- Large abdominal wall defects
- Loss of abdominal domain
- Extensive intestinal adhesive disease
- Poor quality skin (i.e. prior skin graft, or ulcerated skin)
- Incarcerated hernias containing bowel
- Hernias with previous synthetic mesh
- Hernias with chronic infection



- In such patients, **weight loss and other pre-op issues are addressed** prior to hernia repair as a means **to optimize hernia outcomes.**

Surg Obes Relat Dis. 2018 Sep;14(9):1221-1232. doi: 10.1016/j.soard.2018.07.005. Epub 2018 Jul 19.

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Menzo EL¹, Hinojosa M², Carbonell A³, Krpata D⁴, Carter J⁵, Rogers AM⁶.

“OUR PREFERENCE” for single stage surgery

- Selection criteria
 - BMI **35-40**
 - Small defects **< 5 cm**
 - Pre-op **modifiable** factors
 - Clean surgery - **no spillage/contamination**
- Operative decisions
 - **Which bariatric surgery**
 - **Which Mesh**: Long-term absorbable mesh vs Synthetic/hybrid mesh – infection Vs. possible recurrence
 - **Mesh location**: intra vs extra peritoneal
 - **Treat the hernia** if reduction was performed

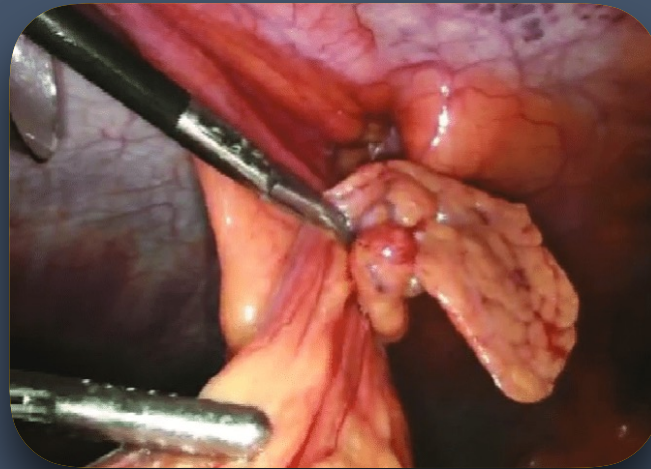


Bariatric Surgery in Very Complex Hernias: Is it worth it?

J Obes. 2011;2011:860942. doi: 10.1155/2011/860942. Epub 2010 Dec 5.

Management of patients with hernia or incisional hernia undergoing surgery for morbid obesity.

Vilallonga R¹, Fort JM, Gonzalez O, Baena JA, Lecube A, Armengol M.



- Hernia was reduced but not repaired
- 40% post-operative intestinal obstruction !!!

Simple hernia reduction - NOPE!?

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Obes Surg. 2012 Apr;22(4):555-9. doi: 10.1007/s11695-011-0574-z.

Laparoscopic sleeve gastrectomy: a first step for rapid weight loss in morbidly obese patients requiring a second non-bariatric procedure.

Hidalgo JE¹, Roy M, Ramirez A, Szomstein S, Rosenthal RJ.

We favour a Staged approach in CAWR

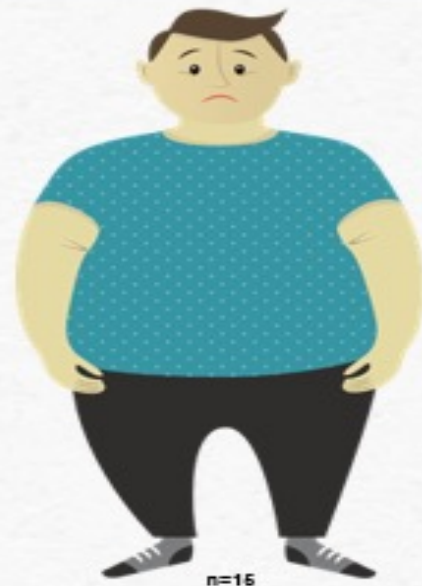
Sleeve
First



- Laparoscopic sleeve gastrectomy: a first step for rapid weight loss in morbidly obese patients requiring a **second non-bariatric procedure.**
 - 18 patients
 - Mean follow-up 7 months
 - BMI 44 BMI 35
 - Only one of these patients had an abdominal hernia

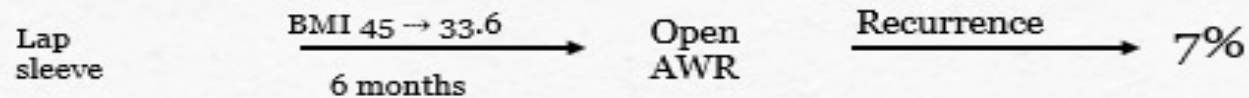
Bariatric Surgery in Very Complex Hernias: Is it worth it?

We favour a Staged approach in CAWR



Hernias with loss of domain (LoD) → risk of abdominal compartment syndrome.
Staged concept → weight loss → enable repositioning of the herniated viscera

All hernias were recurrent incisional hernias with ≥2 failed repairs



Morbid obesity → **risk factor** for abdominal hernias, add **complexity** to their repair, and increases perioperative **risk**.

Surg Obes Relat Dis. 2017 May;13(5):768-773. doi: 10.1016/j.sorad.2017.01.035. Epub 2017 Jan 27.

Complex hernias with loss of domain in morbidly obese patients: role of laparoscopic sleeve gastrectomy in a multi-step approach.

Borbély Y¹, Zenkowski J², Altmeyer J², Eschenburg A², Kröll D², Nett P².

Bariatric Surgery in Very Complex Hernias: Is it worth it?

We favour a Staged approach in CAWR

Bypass only and difer VH treatment

27 morbidly obese patients
average of 3.7 failed ventral hernia repairs
gastric bypass prior to definitive ventral hernia repair.



22 open

7 simultaneous hernia repairs
(4 sutured, 3 biologic mesh)
100% recurred.

BMI 51 → 33
15 months

Definitive prosthetic AWR
0% recurred (20 months)



5 laparoscopic

1 urgent operation
incarcerated small-bowel obstruction
11 months after gastric bypass.

Hernia. 2008 Oct;12(5):465-9. doi: 10.1007/s10029-008-0381-1. Epub 2008 May 21.

Staged hernia repair preceded by gastric bypass for the treatment of morbidly obese patients with complex ventral hernias.



Newcomb WL¹, Polhill JL, Chen AY, Kuwada TS, Gersin KS, Getz SB, Kercher KW, Heriford BT.

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Hernia (2022) 26:715–726
<https://doi.org/10.1007/s10029-022-02573-2>

REVIEW

The European Hernia Society Prehabilitation Project: a systematic review of patient prehabilitation prior to ventral hernia surgery

K. K. Jensen¹  · B. East² · B. Jisova² · M. López Cano³ · G. Cavallaro⁴ · L. N. Jørgensen¹ · V. Rodrigues³ · C. Stabilini^{5,6} · D. Wouters⁷ · F. Berrevoet⁷ 

Bariatric surgery with staged repair of ventral hernia

A total of 8 studies reporting results of weight-loss surgery prior to ventral hernia repair were identified (Fig. 4).

The appropriate management of patients with morbid obesity and abdominal hernia continues to be controversial. The debate is mainly focused on determining the type of approach (open or minimally invasive), if the hernia is symptomatic or asymptomatic, and the timing of hernia repair in relation to bariatric surgery.

The evidence seems to increase in favor of a staged approach in patients with morbid obesity and abdominal hernia [30]. This staged approach appears to decrease postoperative morbidity and recurrence rates, especially in cases of large defects, complex hernias, and asymptomatic patients [31–38].

Reasons for performing a staged management are, on the one hand, reduction of wound complications and recurrence rates after preoperative weight loss and better control of comorbidities such as diabetes; on the other hand, to increase the chances of a successful repair in patients with large chronic hernias or loss of domain, reducing the

difficulty of repair and consequently the incidence of complications [36, 37].

Regarding the type of bariatric procedure of choice, laparoscopic sleeve gastrectomy is recommended since there is no manipulation of the intestine and it is a procedure with lower postoperative risk, a lower risk of complications related to the abdominal wall hernia and a rapid loss of weight allowing for a rapid treatment of the hernia when an adequate weight loss is obtained [36, 37, 39, 40].

As previously discussed, a consensus in the treatment of ventral hernias in obese patients is subject to discrepancy due to the variability of the patients and the characteristics of the hernia. Symptomatic and small hernias that contain intestine and are at risk of strangulation should probably be repaired concomitant to bariatric surgery. In asymptomatic large hernias with a low risk of incarceration or in asymptomatic hernias, there seems to be increasing evidence that supports a staged management to avoid the placement of a prosthetic mesh in a context with potential risk of bacterial contamination [39] and given that in recent studies the risk of incarceration or strangulation appears to be much lower than previously published [31–38], and concomitant repairs appear to present higher morbidity [41, 42].

Staged approach in complex hernias:

- < wound complications
- < recurrence
- < uncontrolled comorbidities
- < LOD
- Sleeve is preferred
- Only correct simultaneously small hernias that contain intestine.

Bariatric Surgery in Very Complex Hernias: Is it worth it?



EAES²⁰₂₂

Operating the inoperable patient: Morbid obesity and complex abdominal wall hernias

C.Mesquita Guimarães¹, T.Marques¹, D.Melo Pinto¹, F.Marrana¹, L.Freire¹, P.Soares Moreira¹, R.Peixoto¹, T.Figueiredo Rama¹, G.Faria¹
Unidade Local de Saúde de Matosinhos, Matosinhos, Portugal



Introduction:

Obesity is a known risk factor for the development of abdominal hernias as well for recurrence after surgery. Therefore, bariatric surgery is important to reduce the risk of recurrence.

In patients with complex abdominal hernias bariatric surgery becomes a challenge.

Aim:

To describe a group of patients submitted to bariatric surgery who presented with complex abdominal wall hernias at the time of bariatric surgery.



Retrospective and descriptive study



Patients submitted to bariatric surgery with complex abdominal hernias



January 2018 - September 2021

Bariatric Surgery in Very Complex Hernias: Is it worth it?



EAES²⁰₂₂


Operating the inoperable patient: Morbid obesity and complex abdominal wall hernias

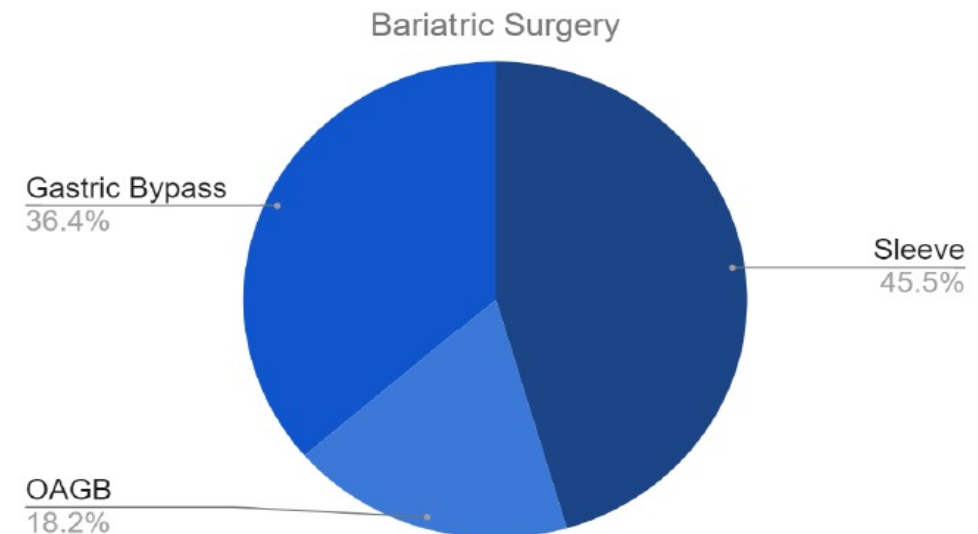
C.Mesquita Guimarães¹, T.Marques¹, D.Melo Pinto¹, F.Marrana¹, L.Freire¹, P.Soares Moreira¹, R.Peixoto¹, T.Figueiredo Rama¹, G.Faria¹

Unidade Local de Saúde de Matosinhos, Matosinhos, Portugal



Results:

-  = 11 patients
- 82% women
- BMI before surgery: 41,5 kg/m²
- BMI before hernia correction surgery: 29,4 kg/m²
- 11 laparoscopic procedures → 2 converted to open surgery



Bariatric Surgery in Very Complex Hernias: Is it worth it?

EAES²⁰₂₂

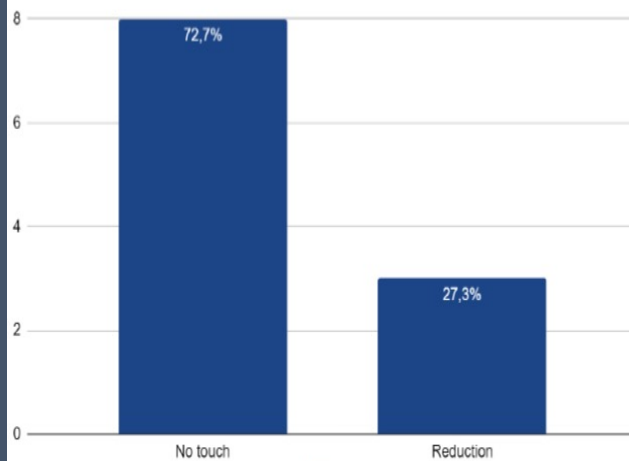
Operating the inoperable patient. morbid obesity and complex abdominal wall hernias

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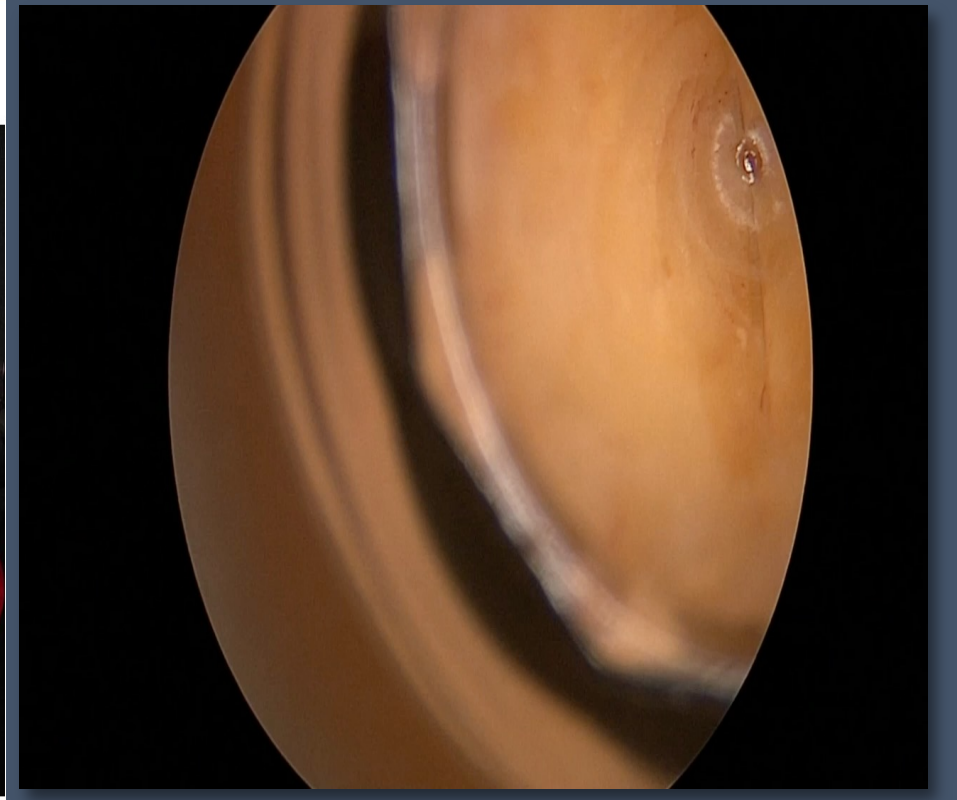
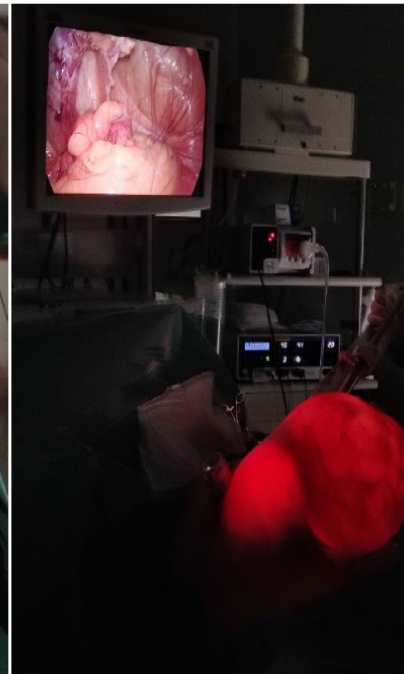
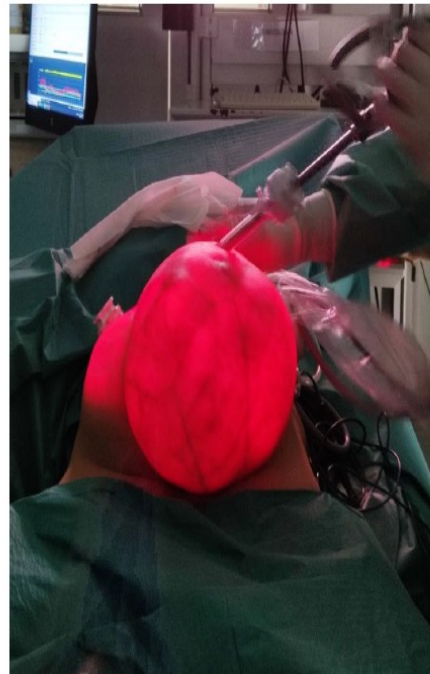
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Surgical option regarding hernia management



No direct hernia complication



courtesy of Dr, Gil Faria, M.D., PhD, Bariatric Surgery
Hospital Pedro Hispano



Bariatric Surgery in Very Complex Hernias: Is it worth it?

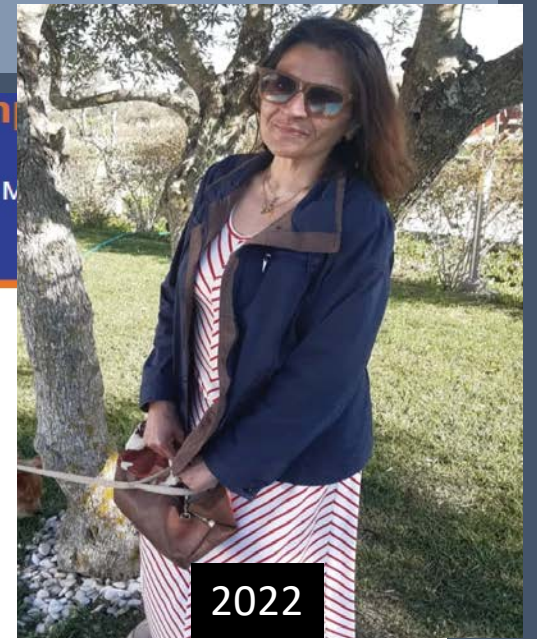


Operating the inoperable patient: Morbid obesity and complex abdominal wall hernias
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R.Peixoto¹, T.Figueiredo Rama¹, G.Faria¹
Unidade Local de Saúde de Matosinhos, Matosinhos, Portugal

Complications
(27,3%)

Small Bowel
lesion (2)

Splenic abscess
(1)



Conclusions:

- Overweight and obesity have been shown to be the most significant predictor of recurrence of incisional hernia repair.
- Losing weight before the hernia correction surgery improves hernia outcomes.
- Bariatric surgery is effective in reducing weight prior to hernia correction.

Although the significantly **higher risk of complications**, bariatric surgery in patients with **complex abdominal wall hernias** is **feasible**, associated with effective **weight loss** and **improved** hernia surgery outcomes.

Bariatric Surgery in Very Complex Hernias: Is it worth it?

Take home messages:

- Abdominal wall reconstruction = Functional Hernia Repair
- Modify The Obesity Factor in AWR = Greatest contributor to incisional hernias and > costs
- Close gaps < 2 cm during bariatric surgery to attempt < Emergency operations
- Avoid single stage surgery in Very Complex Hernias
- Bariatric Surgery is worth it in Very Complex Hernias despite a higher bariatric complication rate (#1 - Sleeve gastrectomy)
 - i. < wound complications
 - ii. < recurrence
 - iii. < uncontrolled co-morbidities

PORTO HERNIA SUMMIT
September 27-28, 2023
PORTUGAL

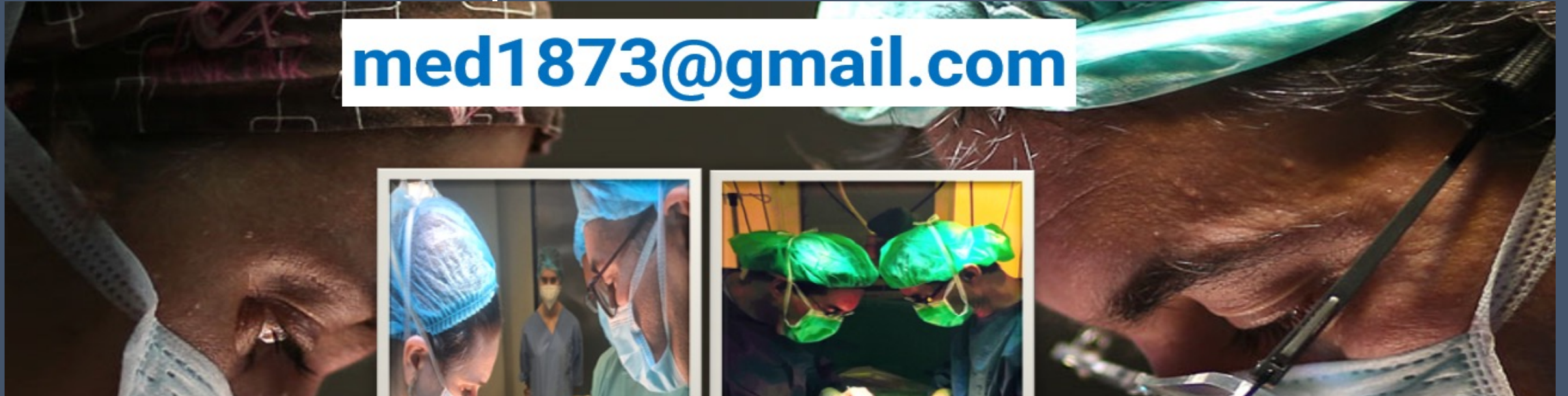


SAVE THE DATE !!



Minimally Invasive and Novel Therapeutics (M.I.N.T.) in Foregut Disease September 29th -October 1st 2022

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Obrigado - THANKS!!

