



ABDOMINAL HERNIA: NEW ASMBS/IFSO GUIDELINES

10.30 - 12.00

Chair: Giampiero Campanelli (Italy)

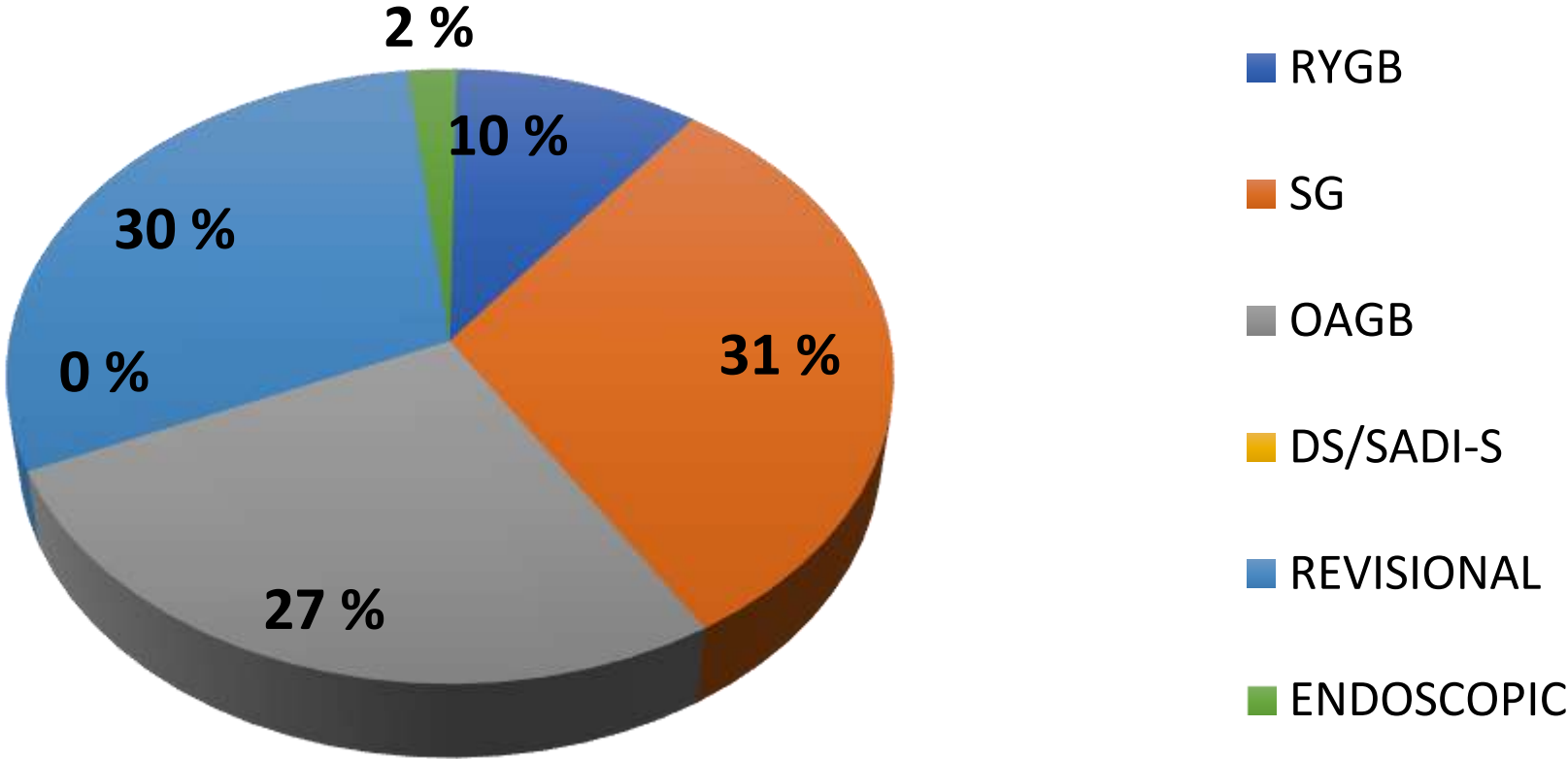
Moderators: Michele Santangelo (Italy), Sylvia Weiner (Germany)

10.30 - 10.40	Systematic Review for the new ASMBS/IFSO Guidelines	Sonja Chiappetta	Italy
10.40 - 10.50	Emergency Approach	Fabio Cesare Campanile	Italy
10.50 - 11.00	1 time possibility: when and why	Emanuele Lo Menzo	USA
11.00 - 11.10	LAP IPOM: when and how	Shashank Shah	India
11.10 - 11.20	Robotic Extraperitoneal approach: when and how	Rossana Berta	Italy
11.20 - 11.30	How to manage recurrences and complications	Rajesh Shrivastava	India
11.30 - 12.00	Discussion Discussants: Sanjay Agrawal (UK), Umberto Bracale (Italy), Diego Cuccurullo (Italy), Ruggero Lionetti (Italy), Karl Miller (Austria)		

PD Dr. med. habil. Sonja Chiappetta
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CASE MIX DISCLOSURE



Disclosures:

Consulting:

- Novo Nordisc
- Johnson and Johnson America
- Genesis Medtech (USA)





MBS first

in abdominal wall hernia requiring elective repair

Abdominal wall hernia repair

Obesity is a risk factor for the development of ventral hernia. It increases the risk for impaired wound healing, local and systemic infections, and other complications following

hernia repair, and increases the risk for recurrence [74–76]. In addition to a larger volume of subcutaneous soft tissue, abdominal wall hernias in the population with obesity tend to be larger, adding to the complexity of repair in these patients. While the timing of MBS relative to hernia repair remains controversial, evidence suggests that patients with large, chronic abdominal wall hernia may benefit from significant weight loss initially as staged procedure to definitive hernia repair [75,77]. Thus, in patients with severe obesity and an abdominal wall hernia requiring elective repair, MBS should be considered first to induce significant weight loss, and consequently reduce the rate of complications associated with hernia repair and increase durability of the repair.



Metabolic and Bariatric Surgery and Abdominal wall hernia repair A Systematic Review

(abdominal wall hernia repair OR incisional hernia OR ventral hernia OR hernia repair) AND (bariatric surgery OR metabolic surgery OR gastric bypass OR sleeve OR obesity OR obesity surgery OR gastric banding OR intragastric balloon)

published by 01 Sept 2022

PubMed n = 2027

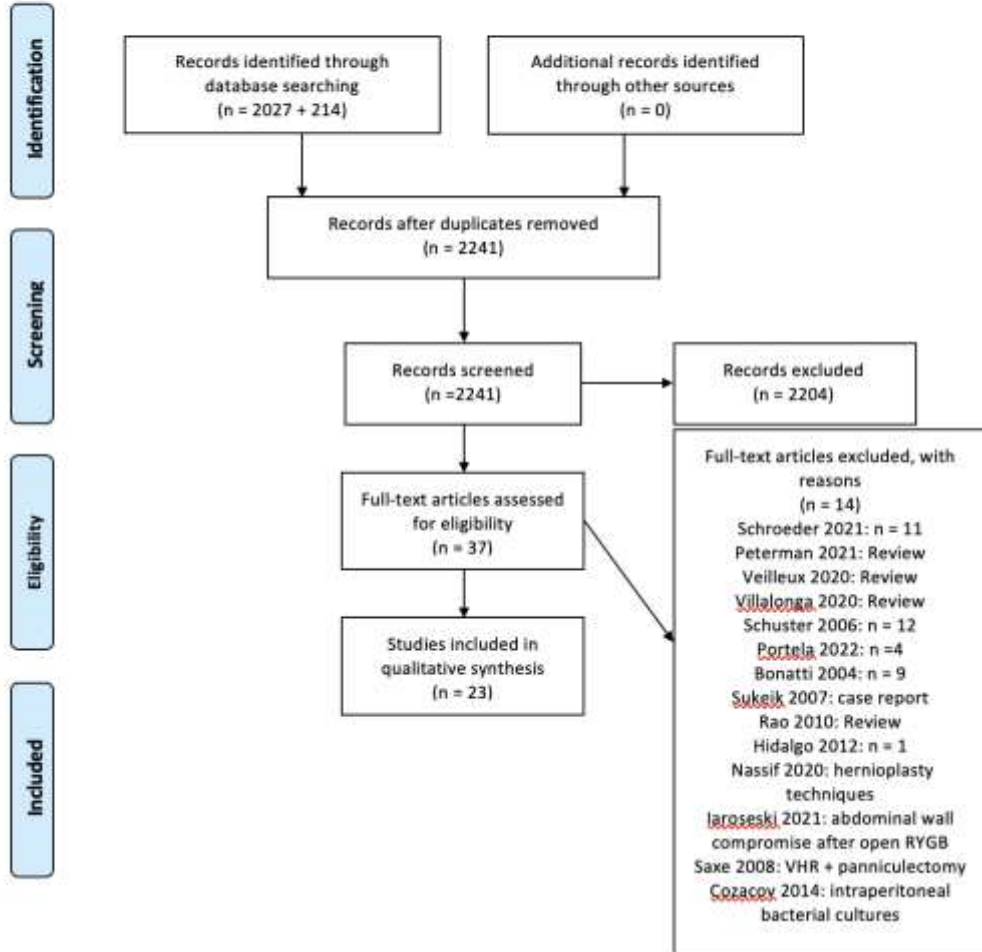
Embase n = 2774

Cochrane n = 214





PRISMA 2009 Flow Diagram:
Abdominal Wall Hernia and MBS



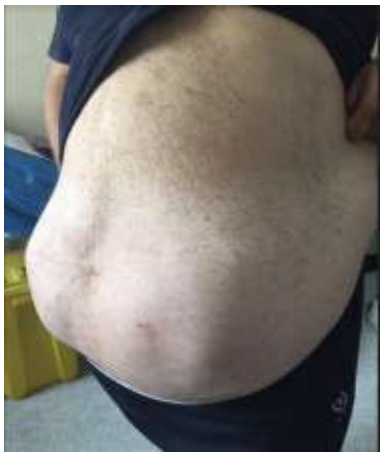
23 studies
n = 30.162 patients

Timing?
Bariatric Surgical Procedure?
VHR?
Complications?
Hernia recurrence?

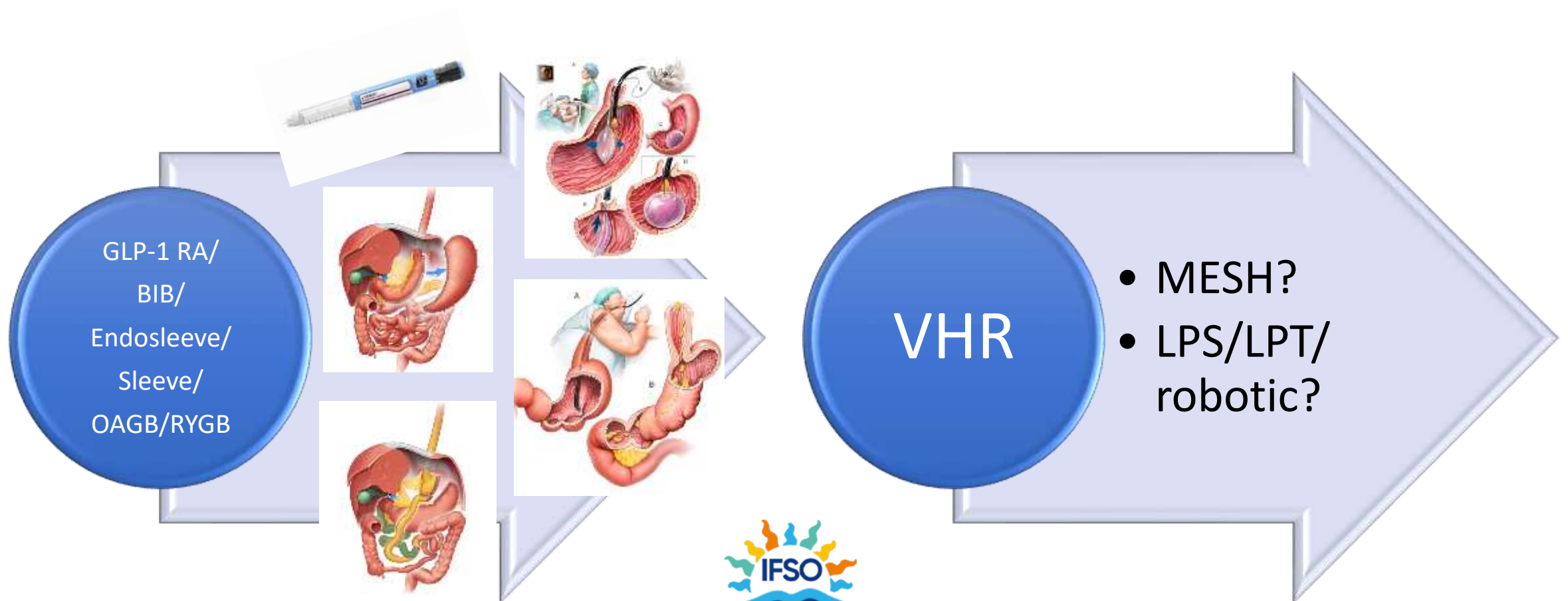
TIMING?



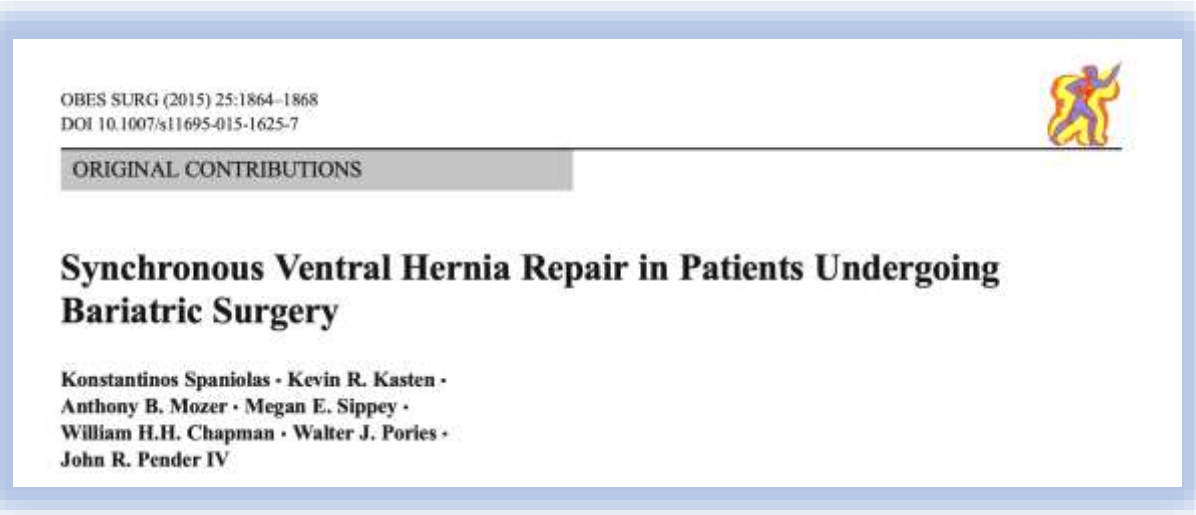
- ventral hernia repair (VHR) **before** BMS
 - **concomitant** VHR and
- VHR **after** BMS and sufficient weight loss



Of the 23 studies, 18 studies included a **concomitant VHR** and only 5 studies a **staged procedure**



Five studies were extracted from national registers (n = 28.967)



Spaniolas et al. analyzed the effect of **concomitant VHR** on surgical site infection (SSI) rate in 503 patients (SG and RYGB) and concluded that:

concomitant VHR is associated with an **increase in SSI (2.3% versus 4.6%, p = 0.001)**, but not overall morbidity.

There is no significant difference in the SSI rate between RYGB and SG.

Five studies were extracted from national registers (n = 28.967)



Khorgami et al. compared BMS (RYGB, SG) alone and **BMS with VHR** (n = 988 versus n = 988) and reported

- an increased rate of composite adverse events (p = 0.01),
- a higher rate of unplanned return to the operating room (p < 0.001), and
- a higher 30-day readmission rate (p = 0.01)

Five studies were extracted from national registers (n = 28.967)



Moola et al. compared BMS (RYGB, SG) alone and **BMS with VHR** (n =4690 versus n = 4648).

Concurrent VHR was associated with a

- **higher major complication rate (5.8 vs 3.8%, p < 0.001),**
- a greater incidence of reoperation (2.3% vs 1.1%, p < 0.001),
- a higher rate of deep surgical site infection (0.7 vs 0.3%, p = 0.025) and
- a higher rate of sepsis (0.3 vs 0%, p < 0.004),
- but no significant difference in mortality (0.3 vs 0.2%, p = 0.531).

Five studies were extracted from national registers (n = 28.967)



Moskowicz et al. compared

VHR in the 2 years before BMS (n = 2039) - concomitant BMS and VHR (n = 3388) - and VHR within 2 years after BMS (n = 6260)

and concluded that one-quarter of bariatric patients undergoing VHR will be reoperated for anterior hernia and that due to the higher risk of reoperation for recurrence **VHR before BMS should be avoided.**

Overall 10 year **reoperation rate for VHR** was reported to be **23.3%** and reoperation was highest in **VHR-first group (36.2%)**.

Five studies were extracted from national registers (n = 28.967)

Obesity Surgery (2020) 30:4474–4481
<https://doi.org/10.1007/s11695-020-04848-y>



ORIGINAL CONTRIBUTIONS



Are Concomitant Operations During Bariatric Surgery Safe? An Analysis of the MBSAQIP Database

Benjamin Clapp¹ · Isaac Lee¹ · Evan Liggett¹ · Michael Cutshall¹ · Bryson Tudor¹ · Grishma Pradhan¹ · Katherine Aguirre¹ · Alan Tyroch¹

Clapp et al. analyzed the risk of VHR as a concomitant procedure (n = 5463) during BMS (RYGB, SG) and since there is a **higher rate of complications**, the team concluded, that VHR during BMS is only indicated such as when contents of the hernia have to be removed to complete the operation and that

“additional procedures at the time of bariatric surgery should be deferred if possible”

STAGING?

In the 5 studies with **staged procedures BMI decreased** from initially

- 45.6 +/- 6.1 kg/m² to 34.9 kg/m² (20.7 +/- 12.3% TBMIL) **after 13.5 +/- 11.7 months** (Morrell 2021)
- 37.8 +/- 5.7 kg/m² compared to 24.6 +/- 4.5 kg/m² with a bridge to surgery **after 8 months to 2 years** (Olmi 2020)
- 46.7 +/- 6.4 kg/m² to 34.1 +/- 6.5 kg/m² **after 21.5 (range 7-87) months** (% WL 28 +/- 11%) (Chandeze 2019)
- 51 (39-69) kg/m² to 33 (25-37) kg/m² **after 1.3 (0.9-3,1) years** (Newcomb 2008)
- 45.3 (36.3-65.8) kg/m² to 33.6 (20.9-45.7) kg/m² **after 185 (32-640) days** (Borbely 2017)

HERNIA RECURRENCE

Surg Endosc
DOI 10.1007/s00464-016-5143-z



Outcomes of concomitant ventral hernia repair performed during bariatric surgery

G. Sharma¹ · M. Boules¹ · S. Panchai¹ · A. Strong¹ · D. Fryolich¹ · N. H. Zubaidah¹ · C. O'Rourke¹ · S. A. Brethauer¹ · J. Rodriguez¹ · K. El-Hayek¹ · M. Kroh¹

Table 4 Yearly estimates of incidence of hernia recurrence in primary and mesh repair groups

Time	N at risk	Cumulative incidence (%)	95 % CI	
			Lower limit (%)	Upper limit (%)
Primary repair				
0 day	115	0.0	0.0	0.0
30 days	110	2.6	0.0	5.5
180 days	89	7.5	2.3	12.3
1 year	69	18.3	10.2	25.6
3 years	36	31.0	19.7	40.8
5 years	18	31.0	19.7	40.8
Mesh repair				
0	44	0.0	0.0	0.0
30 days	42	0.0	0.0	0.0
180 days	37	2.4	0.0	6.9
1 year	29	16.1	3.4	27.2
3 years	20	31.3	13.9	45.3
5 years	14	34.8	16.4	49.1

CI confidence intervals

Too high???

Obesity Surgery (2020) 30:3905–3911
<https://doi.org/10.1007/s11695-020-04747-2>



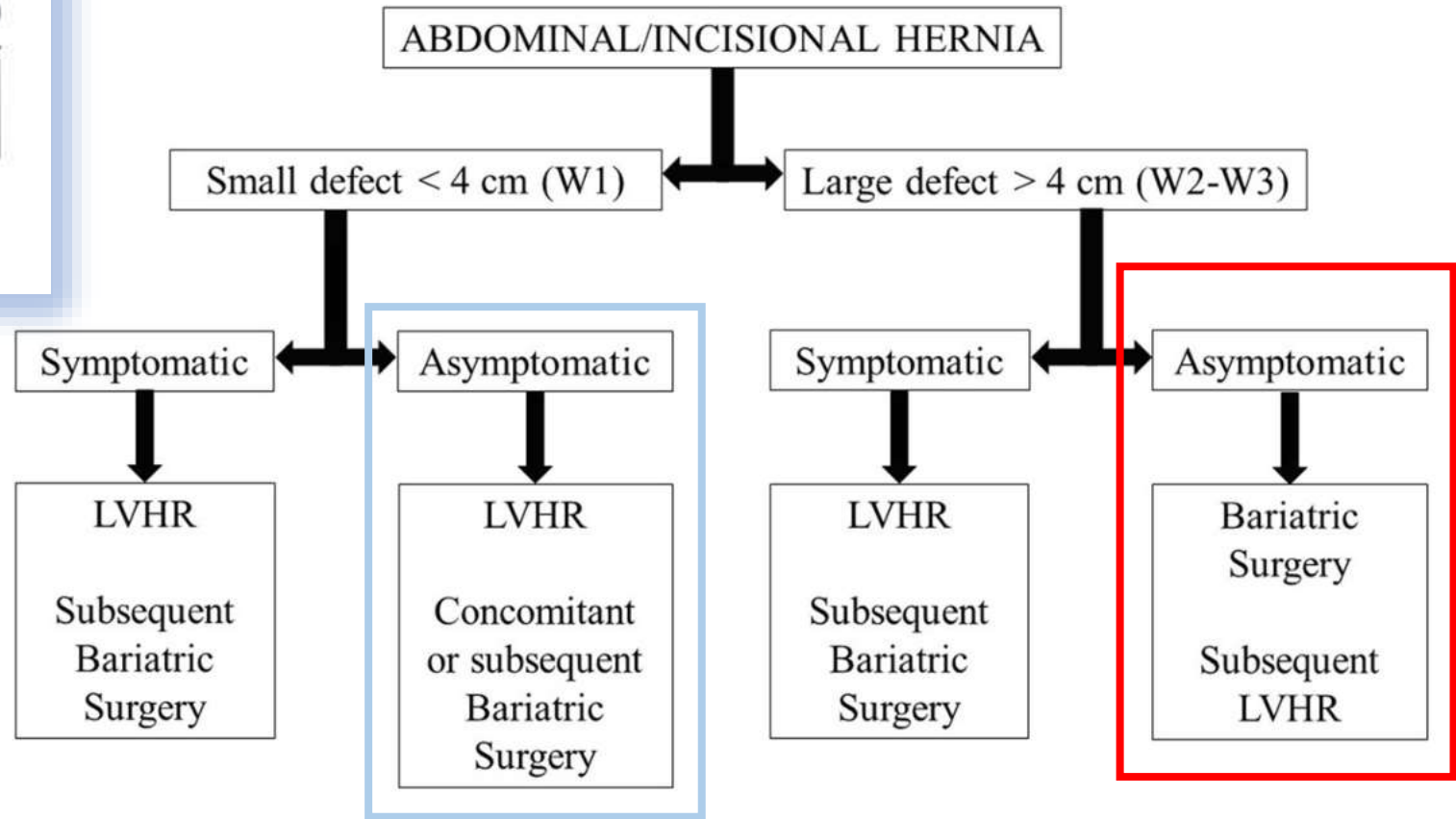
ORIGINAL CONTRIBUTIONS



Laparoscopic Ventral Hernia Repair in Bariatric Patients: the Role of Defect Size and Deferred Repair

Stefano Olmi¹ · Matteo Uccelli¹ · Giovanni Carlo Cesana¹ · Francesca Ciccarese¹ · Alberto Oldani¹ · Riccardo Giorgi¹ · Stefano Maria De Carli¹ · Roberta Villa¹ · Adelinda Angela Giulia Zanoni¹ · Ayman Ismail¹

MBS: absence of occupation of the hernial sac or the presence of an intestinal loop engaged in the sac



Conclusion The present study demonstrates the safety of performing LDR in patient candidates for bariatric surgery in cases of a large abdominal hernia (W2–W3) with a low risk of incarceration or an asymptomatic abdominal hernia. In the case of a small abdominal hernia (W1) or strongly symptomatic abdominal hernia, repair before bariatric surgery, along with subsequent bariatric surgery and any revision of the abdominal wall surgery with weight loss, is preferable.

CONCLUSION

- Literature presents a high amount of heterogeneous data regarding VHR in patients with obesity and only five studies evaluated a staged approach. The main of the studies evaluated concomitant hernia repair.
- The five existing national register studies included a high number of patients (n = 28.967) compared to the other retrospective cohort studies (n = 1195).
- **Concomitant VHR is associated with a higher rate of surgical site infection, a higher rate of complications, a higher risk of major complications and an increased 30-day morbidity.**
- Furthermore, due to the higher risk of reoperation for recurrence, **VHR should be avoided in bariatric patients prior to BMS.**
- VHR **before** BMS only in **symptomatic, low-or high-grade intestinal obstruction (emergency).**

CONCLUSION



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Thank you



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Interdisciplinary Long-Term Treatment of Bariatric and Metabolic Surgery Patients

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Editors

Springer