

# IPOM AND OBESITY WHEN AND HOW ?

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**•VIVIAN FONSECA SCHOLAR AWARD BY AMERICAN DIABETES  
ASSOCIATION**

**•45 hernia Surgeries in just 10 hours Published by LIMCA BOOK OF RECORD**



**I have no potential conflict of interest to report**



# ASMBS AHS GUIDELINES



Surgery for Obesity and Related Diseases 14 (2018) 1221–1232

SURGERY FOR OBESITY  
AND RELATED DISEASES

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

Emanuele Lo Menzo, M.D.<sup>a</sup>, Marcelo Hinojosa, M.D.<sup>b</sup>, Alfredo Carbonell, M.D.<sup>c</sup>,  
David Krpata, M.D.<sup>d</sup>, Jonathan Carter, M.D.<sup>e</sup>, Ann M. Rogers, M.D.<sup>f,\*</sup>

- Link between obesity & Hernia
- Increase AWH with increased BMI
- **Factors responsible :**
  - Increased Visceral Fat
  - Increased intra abdominal pressure
  - Increased abdominal wall circumference

### **Other factors :**

- Reduced testosterone
- ? Reduced muscle strength
- Increased SSI
- Increased primary and incisional Hernias

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- In patients with severe obesity and VH, and both being amenable to laparoscopic repair, **combined hernia repair and MBS may be safe and associated with good short-term outcomes** and low risk of infection. There is a **relative lack of evidence, however, about the use of synthetic mesh** in this setting.
- In patients with severe obesity and AWH that is **not amenable to laparoscopic repair, a staged approach is recommended**. Weight loss, whether through surgery or through multidisciplinary medical management, prior to hernia repair is likely to improve hernia repair outcomes. MBS appears to provide far more significant and rapid weight loss than other modalities and would be a good option for selected patients with severe obesity and large, symptomatic AWH

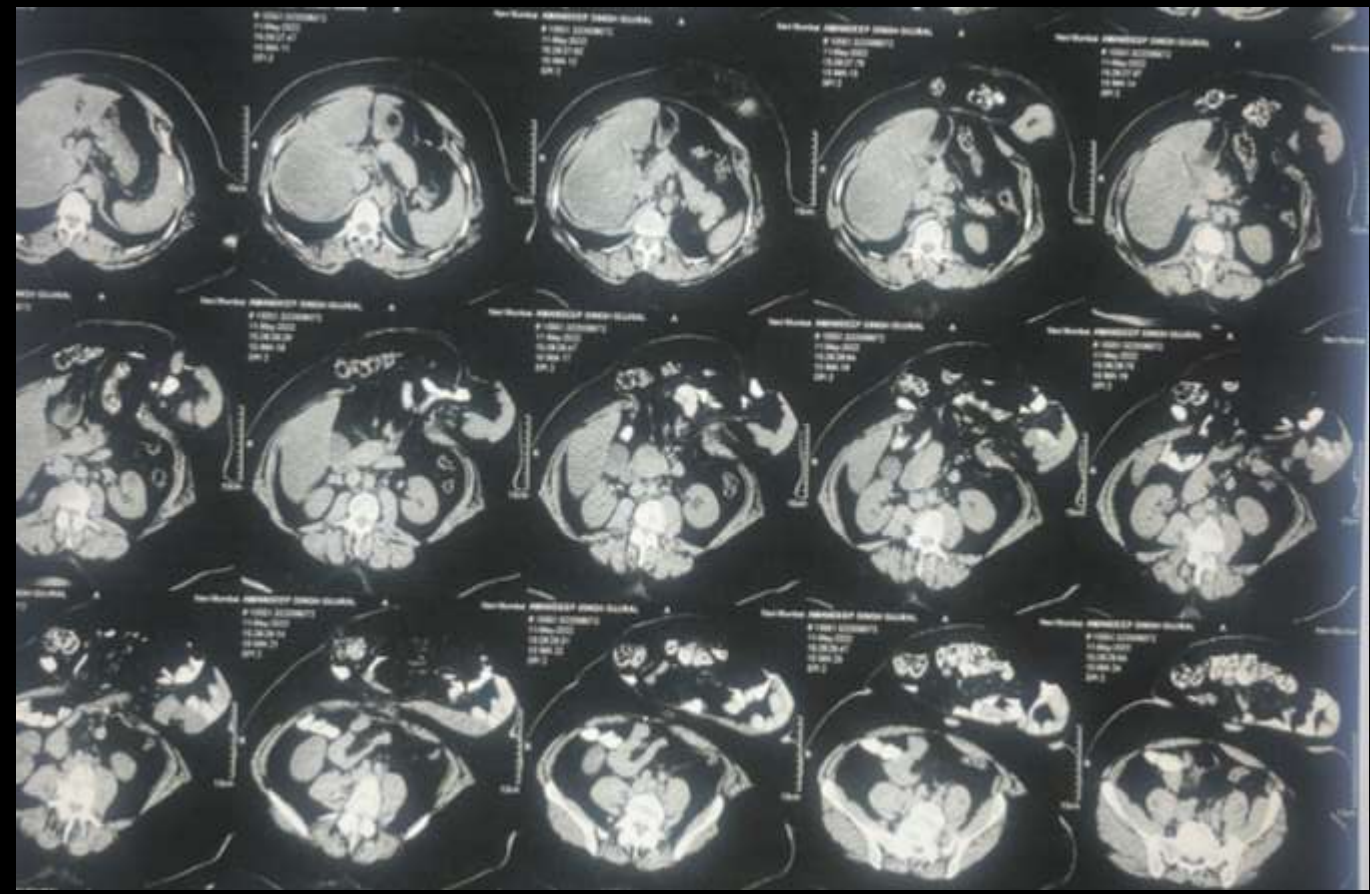
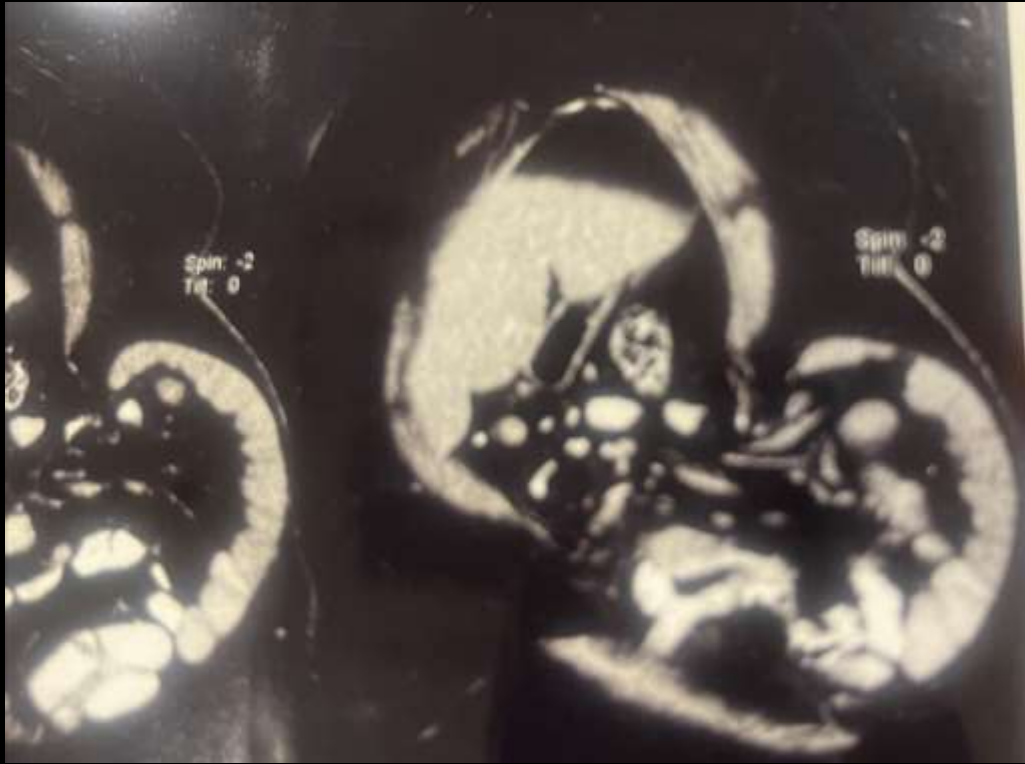
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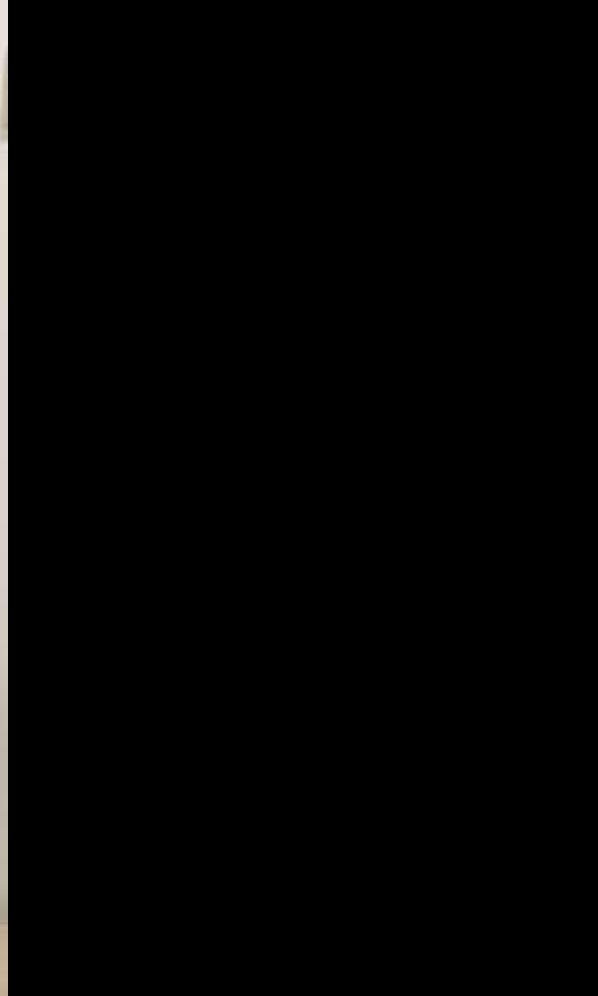
- **Grade of Obesity impacts development , progression , type of repair and even outcomes.**
- **Weight loss is ideal prior to hernia repair**
- **Amount of weight loss required prior to hernia surgery may depend on the indication , timing of surgery , associated medical conditions and whether concomitant or staged procedure .**



# IPOM DONE(BMI 44KG/M2) 4 YRS BACK RECURRENCE AFTER 15 MONTHS



**IPOM DONE(BMI 44KG/M2) 4 YRS BACK  
RECURRENCE AFTER 15 MONTHS**





# LAP IPOM REPAIR ....RECURRENCE

- Mesh with > 4cm defect overlap
- 4 corner trans fascial sutures
- Circumferential spiral tacks

- Novitsky et al Arch surg 2006
- 162 patients , mean BMI 38kg/m<sup>2</sup>
- Recurrence 5.5% @ 25 months

- Higher BMI
- Increased operative time
- Larger defect

- Raftopoulos , Arch Surg
- BMI 46.9kg/m<sup>2</sup>
- Recurrence 18.5% @15months

# Concomitant repair for Ventral Hernia

> Surg Obes Relat Dis. 2019 Jul;15(7):1098-1103. doi: 10.1016/j.soard.2019.04.027. Epub 2019 May 2.

## Morbid obesity with ventral hernia: is concomitant bariatric surgery with laparoscopic ventral hernia mesh repair the best approach? An experience of over 150 cases

Palanivelu Praveen Raj <sup>1</sup>, Siddhartha Bhattacharya <sup>2</sup>, S Saravana Kumar <sup>2</sup>, R Parthasarathi <sup>3</sup>, Bharath Cumar <sup>3</sup>, C Palanivelu <sup>4</sup>

Affiliations + expand

PMID: 31201111 DOI: 10.1016/j.soard.2019.04.027

**Results:** A total of 156 patients underwent concomitant bariatric surgery with IPOM, 120 patients (body mass index :  $43.64 \pm 6.8$ ) underwent sleeve gastrectomy, and 36 patients (body mass index:  $42.49 \pm 8.57$ ) underwent Roux-en-Y gastric bypass. One-hundred and seventeen patients were operated for primary hernia and 39 for recurrent hernia. There were no postoperative mesh infections and only 1 patient had recurrence.

**Conclusion:** Bariatric surgery with IPOM provides the patient with a 1-stage treatment for both obesity and ventral hernia along with reduced risk of recurrence as a result of weight loss. It is safe to do a combined procedure in high volume centers with adequate expertise.

# Concomitant repair for Ventral Hernia

> [Obes Surg. 2016 Jun;26\(6\):1191-4. doi: 10.1007/s11695-015-1875-4.](#)

## Concomitant Bariatric Surgery with Laparoscopic Intra-peritoneal Onlay Mesh Repair for Recurrent Ventral Hernias in Morbidly Obese Patients: an Evolving Standard of Care

Palanivelu Praveenraj <sup>1</sup>, Rachel Maria Gomes <sup>2</sup>, Saravana Kumar <sup>2</sup>, Palanisamy Senthilnathan <sup>3</sup>, Ramakrishnan Parthasarathi <sup>3</sup>, Subbiah Rajapandian <sup>3</sup>, Chinnusamy Palanivelu <sup>3</sup>

Affiliations + expand

PMID: 26337696 DOI: 10.1007/s11695-015-1875-4

**Conclusion:** Laparoscopic IPOM repair done with concomitant bariatric surgery in morbidly obese patients with RVHs seems promising with a low rate of early recurrence.

# Concomitant ventral hernia repair and bariatric surgery: a retrospective analysis from a UK-based bariatric center

Miss Sylvia Krivan <sup>1</sup>, Andrea Giorga <sup>2</sup>, Marco Barreca <sup>2</sup>, Vigyan Kumar Jain <sup>2</sup>, Omer Saad Al-Taan <sup>2</sup>

Affiliations + expand

PMID: 30341658 DOI: 10.1007/s00464-018-6492-6

**Results:** One hundred and six patients underwent concomitant BS and VHR. Fifty-nine had laparoscopic VHR and 47 open. **Hernias recurred in 5 (8.47%) laparoscopic and 7 (14.89%) open VHR.** Wound-related complications were common in open (15%) vs. laparoscopic (11.7%) VHR. **Patients with VH recurrence included 8 (75%) with defects > 5 cm, 10 (83%) female, and all had BMI > 45.** Six patients had wound infection, 5 of which had type 2 diabetes mellitus. Six patients had hematoma, 5 of which underwent mesh repairs. Finally, four patients developed seroma (BMI > 48, defects > 5 cm, laparoscopic mesh repair).

# eTEP for Ventral Hernia after Bariatric Surgery

[Surg Case Rep.](#) 2023 Dec; 9: 27.

PMCID: PMC9939563

Published online 2023 Feb 20. doi: [10.1186/s40792-023-01610-1](https://doi.org/10.1186/s40792-023-01610-1)

PMID: [36807016](https://pubmed.ncbi.nlm.nih.gov/36807016/)

Ventral hernia repair with enhanced-view totally extraperitoneal technique after a massive weight loss by laparoscopic sleeve gastrectomy

[Manabu Amiki](#), [Yasuhiro Ishiyama](#), [Ichitaro Mochizuki](#), [Kazuhiro Narita](#), [Manabu Goto](#), and [Koji Sekikawa](#)

## Conclusions

eTEP repair of a ventral hernia after massive weight loss following MBS would appear to be the best combination treatment for obese patients with ventral hernias. However, long-term follow-up is necessary to establish its safety and efficacy.



# Complex Hernia with loss of Domain

> Surg Obes Relat Dis. 2017 May;13(5):768-773. doi: 10.1016/j.soard.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

Yves Borbély<sup>1</sup>, Jacek Zerkowski<sup>2</sup>, Julia Altmeier<sup>2</sup>, Anna Eschenburg<sup>2</sup>, Dino Kröll<sup>2</sup>, Philipp Nett<sup>2</sup>

Affiliation:

PMID: 28111111 | [j.soard.2017.01.035](https://doi.org/10.1016/j.soard.2017.01.035)



**Conclusion:** A 2-step approach to treat massive hernias with LoD in morbidly obese patients is safe and effective. LSG as initial weight loss procedure addresses LoD successfully without a need for further preoperative measures to condition for hernia repair.

> [Obes Surg. 2013 May;23\(5\):703-9. doi: 10.1007/s11695-013-0883-5.](#)

## Ventral hernias in morbidly obese patients: a suggested algorithm for operative repair

George M Eid <sup>1</sup>, Krzysztof J Wikiel, Fateh Entabi, Mark Saleem

Affiliations + expand

PMID: 23494458 DOI: [10.1007/s11695-013-0883-5](#)

This study was performed in a high-volume bariatric and minimally invasive surgery center at a tertiary care facility in the USA. Twenty-eight morbidly obese patients treated at our facility between 2003 and 2008 were separated into four groups according to anatomic features and symptoms. Patients with the following characteristics were classified as having a favorable anatomy: body mass index not exceeding 50 kg/m<sup>2</sup>, gynecoid body habitus, reducible hernias found in a central location, abdominal wall thickness less than 4 cm, and the defect's largest diameter not exceeding 8 cm. All other patients were classified as having an unfavorable anatomy. In this study, we report a systematic treatment approach for the morbidly obese patient presenting with a ventral hernia based on whether the hernia is symptomatic or asymptomatic, as well as the distinct characteristics of the hernia and body habitus features. We followed up on these patients postoperatively for at least 2 years, with a mean follow-up period of 30 months. Only a total of three hernia recurrences were observed. Successful treatment of ventral hernias in morbidly obese patients should be individualized based on the patient's symptoms and defined hernia characteristics.

## FAVOURABLE OR UNFAVOURABLE OBESITY

- ❖ BMI : < 40KG/M<sup>2</sup> . 40 -50 , > 50
- ❖ GYNOID / ANDROID OBESITY
- ❖ SUBCUTANEOUS FAT THICKNESS < 4CM , 4CM TO 6CM , > 6CM ,>8CM
- ❖ PRESENCE OF ABDOMINAL WALL OEDEMA / SKIN INFECTION
- ❖ PRESENCE OF ABDOMINAL WALL OEDEMA/ CELLULITIS



# UNFAVOURABLE OBESITY AND UNFAVOURABLE HERNIA



# Unfavorable recurrent hernia & favorable obesity





# FAVORABLE /UNFAVORABLE HERNIA

- Midline
- Defect Size < 4cm Or >8cm
- Primary / Incisional
- Primary / Recurrent
- Single/ Multiple
- Size Of The External Sac / Redundant skin
- Bowel Adhesions
- History Of Previous Surgery
- Reducible / Non Reducible
- Planned /Emergency

> Obes Surg. 2013 May;23(5):703-9. doi: 10.1007/s11695-013-0883-5.

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Affiliations + expand

PMID: 23494458 DOI: 10.1007/s11695-013-0883-5



Hernia  
<https://doi.org/10.1007/s10029-020-02318-z>

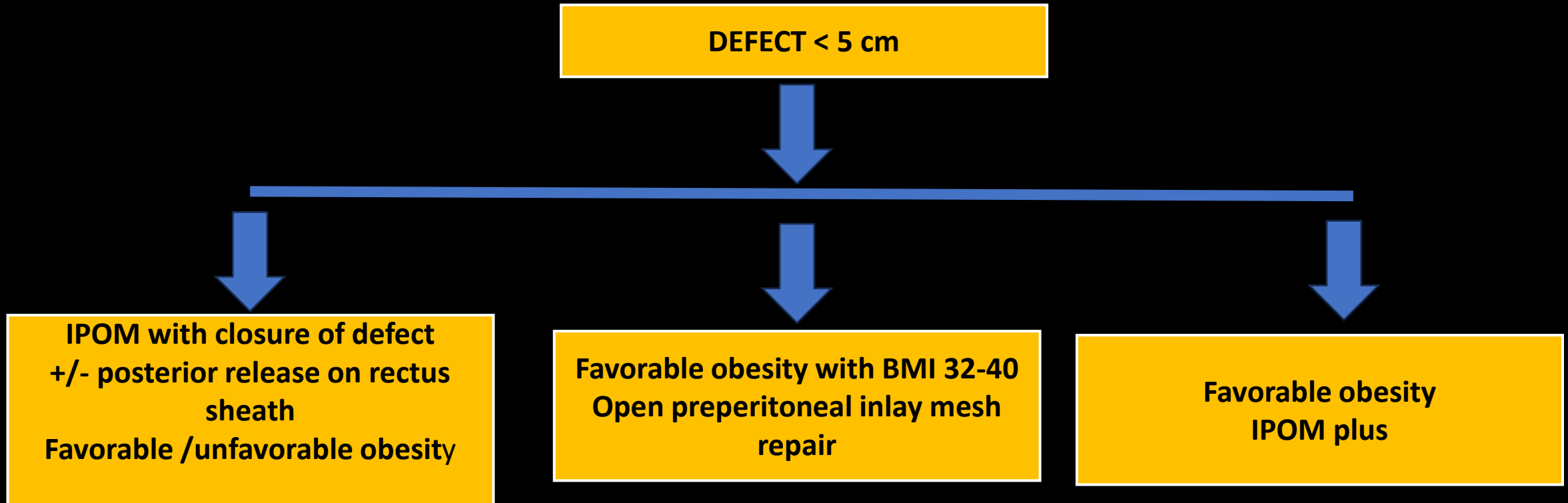
ORIGINAL ARTICLE

## Management of ventral hernia in patients with BMI > 30 Kg/m<sup>2</sup>: outcomes based on an institutional algorithm

S. J. Baig<sup>1</sup> · P. Priya<sup>1</sup>

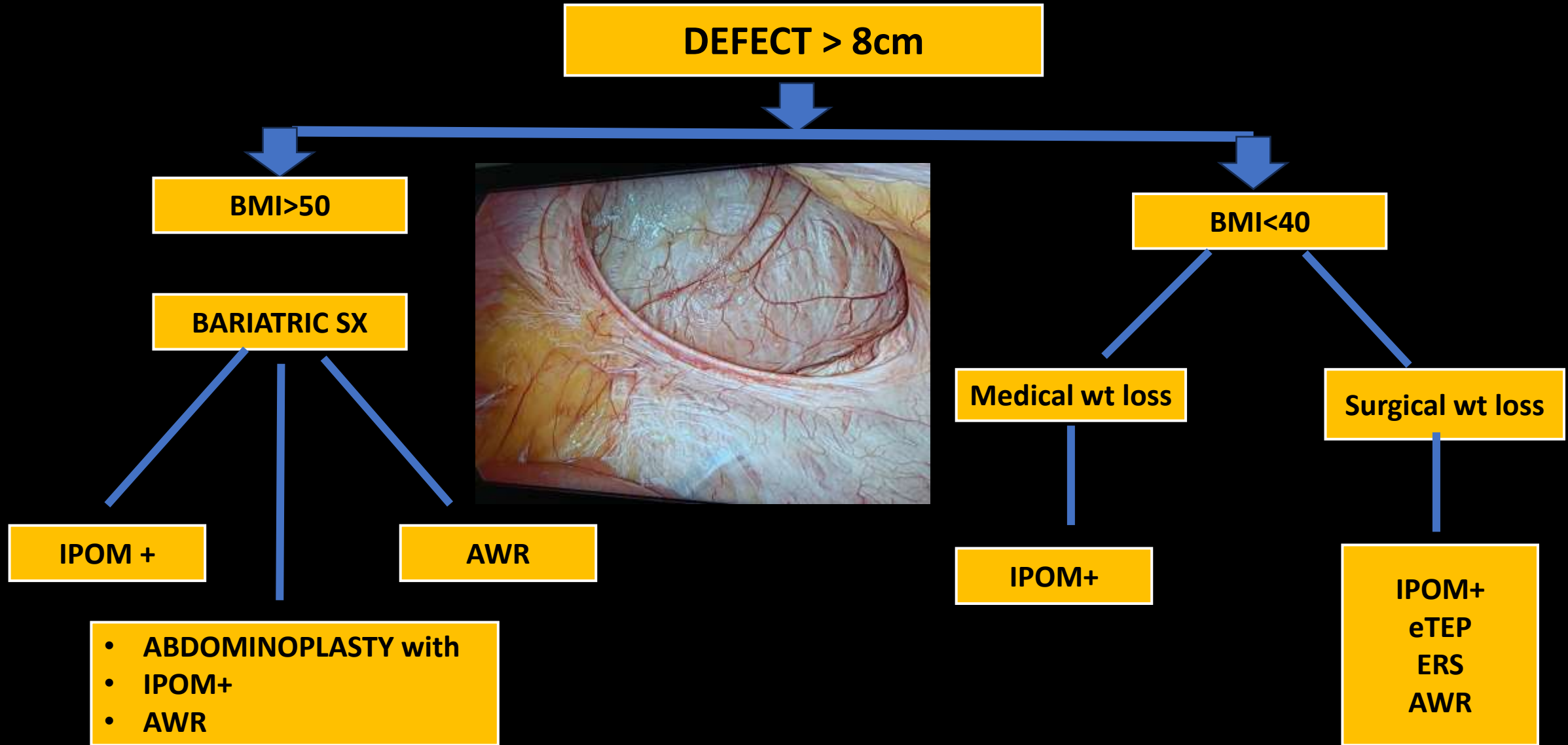
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# OUR ALGORITHM for Bariatric + Hernia



- Any bypass procedure / history of any previous bowel surgery : repair of defect < 5cm is a must
- Unfavorable obesity with adherent omental plug in umbilical hernia may be left at times.
- Concomitant Bariatric and hernia preferred

# OUR ALGORITHM for Bariatric + Hernia



# HERNIA & OBESITY

- **Small defect**
- **Concomitant Hernia repair + Bariatric**

- **Symptomatic hernia**
- **Patient unwilling for bariatric**
- **Medical weight loss followed by hernia repair +/- Bariatric**

- **Large defect**
- **Bariatric followed by 2<sup>nd</sup> stage hernia repair**

- **Complex hernia with adhesions**
- **Medical weight loss / Bariatric**
- **Appropriate hernia repair**

# CONCLUSION

- **Bariatric surgery itself is a pre-operative preparation for large hernia/ unfavorable hernias.**
- **Concomitant MBS and IPOM/ + may be safe with good short term outcomes if obesity and hernia are favorable .**



**THANK YOU !**



**NAPOLI  
2023**



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