

# HOW TO MANAGE RECURRENCES AND COMPLICATIONS “Ventral Hernia”

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Disclosure  
No conflict of Interest

Being an **AWR surgeon**, I work  
in the high-volume bariatric  
team of  
**“Dr Muffazal Lakadawala sir”**  
all my AWR obese patients are  
referred to me by him.



# Morbidly obese patients have more likely to have recurrence than non obese

[Martínez-Serrano MA<sup>1</sup>](#), [Pereira JA](#), [Sancho JJ](#), [López-Cano M](#), [Bombuy E](#), [Hidalgo J](#),  
[Study Group of Abdominal Hernia Surgery of the Catalan Society of Surgery](#)

## The challenges may be

- Higher intraabdominal pressure
- Increase risk of SSI & SSO
- Higher rate of associated co-morbid conditions & complication
- Technical challenge of surgery
- Excessive adipose tissue with poor vascularity
- Large potential subcutaneous tissue

# Causes of Recurrences

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**Inadequate initial repair:**

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**Tension on the repair:.**

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**Poor wound healing:**

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**Obesity:**

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**Smoking:.**

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**Chronic cough.**

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**Lifestyle factors:**

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**Genetics:**

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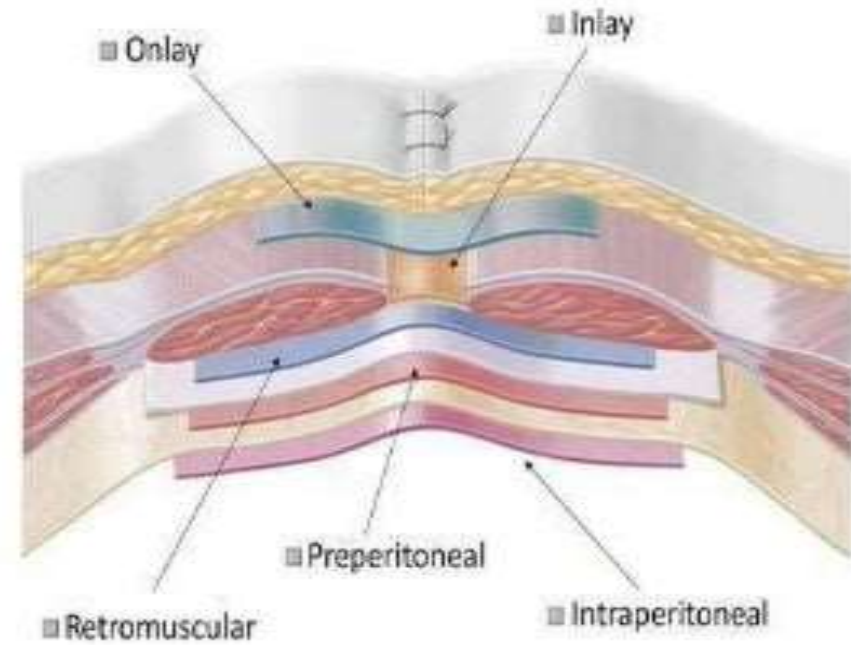
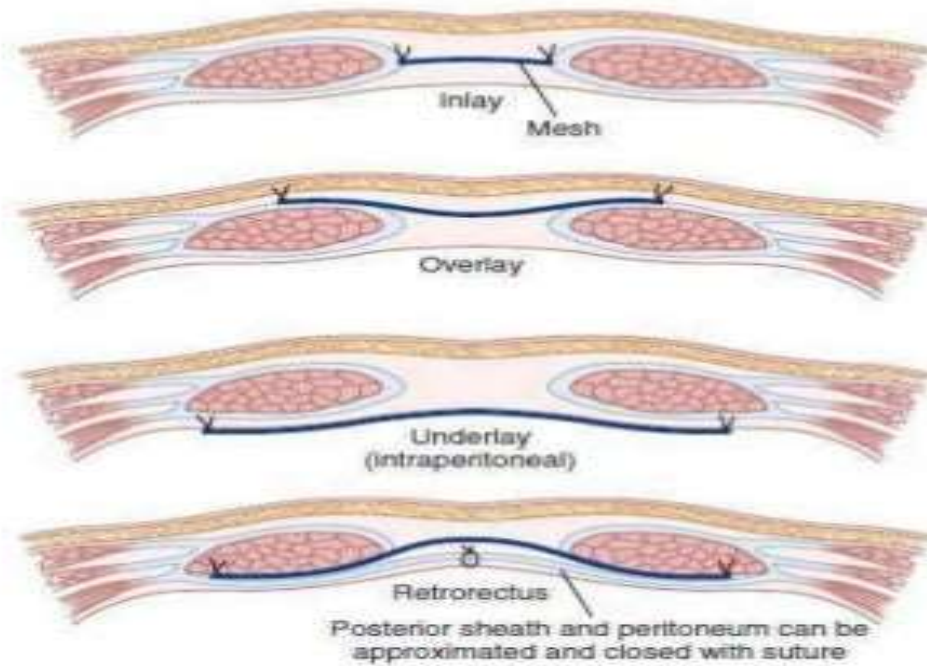
**Postoperative complications:**

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**Failure to address underlying issues**

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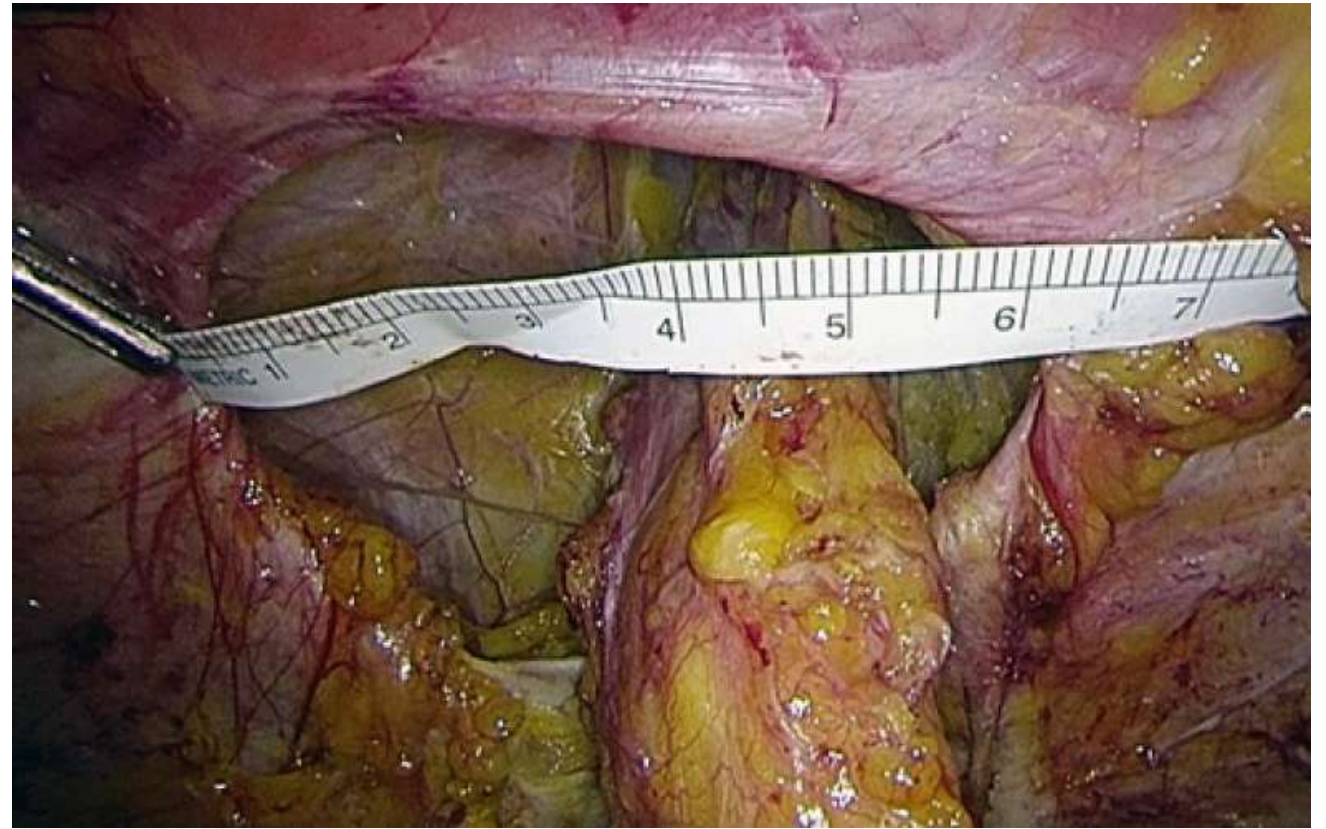




- Meta-analysis by Holihan et al. in 2015
  - Sublay placement - lowest risk for recurrence and surgical-site infection

Holihan JL, Nguyen DH, Nguyen MT et al. Mesh location in open ventral hernia repair: A systematic review and network meta-analysis. World J Surg

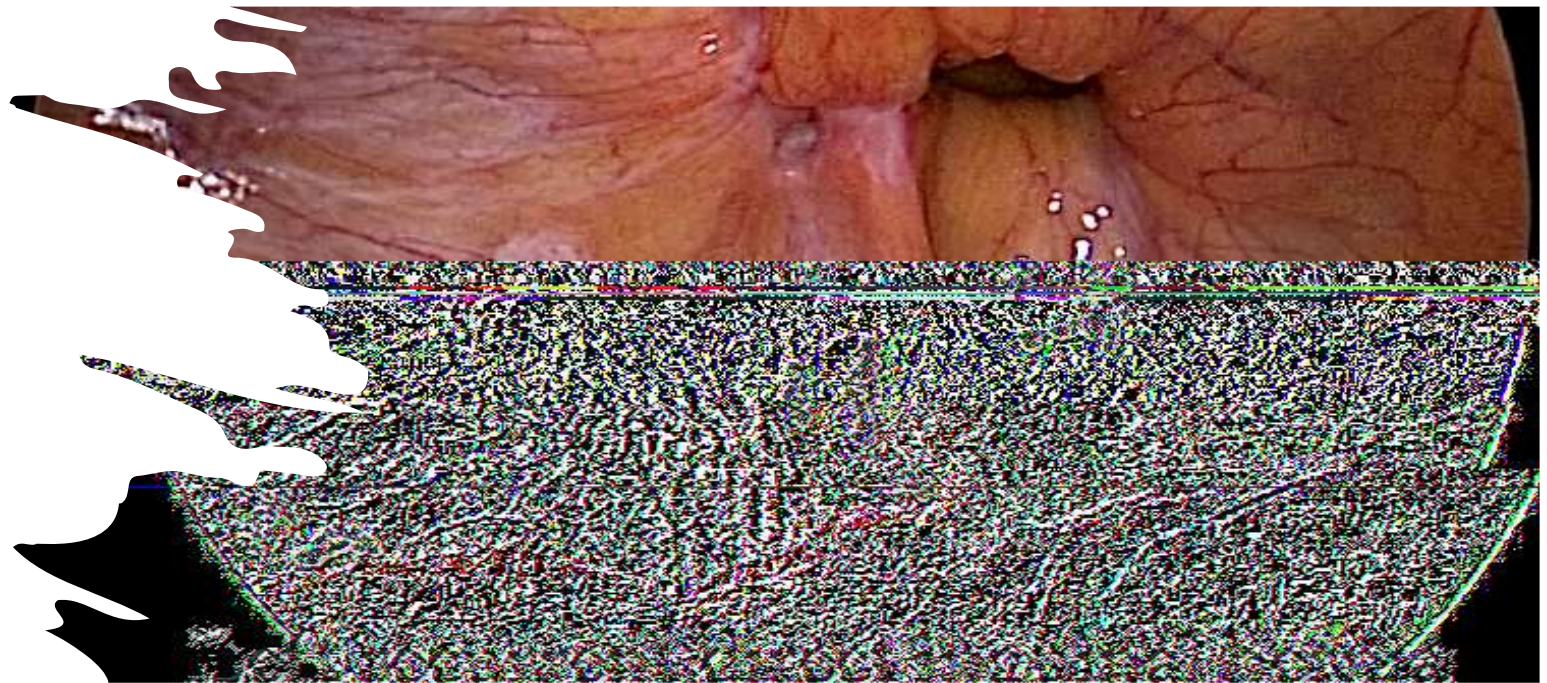




Absolute diameter of defect/ Surface area of defect compared to surface area of abdominal wall



# Number of Previous repair



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# Complications in ventral hernia repair

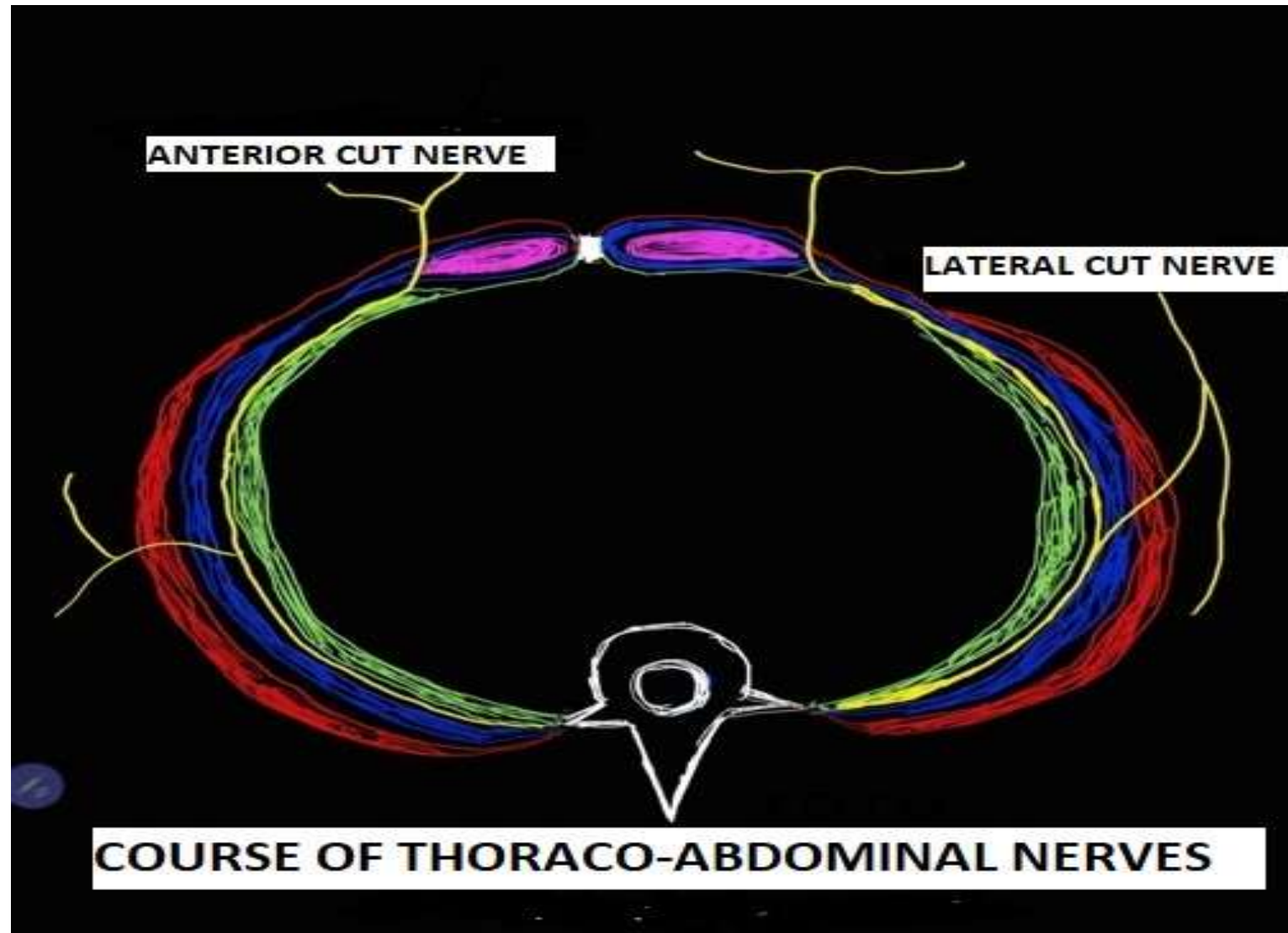
## • Early Complications

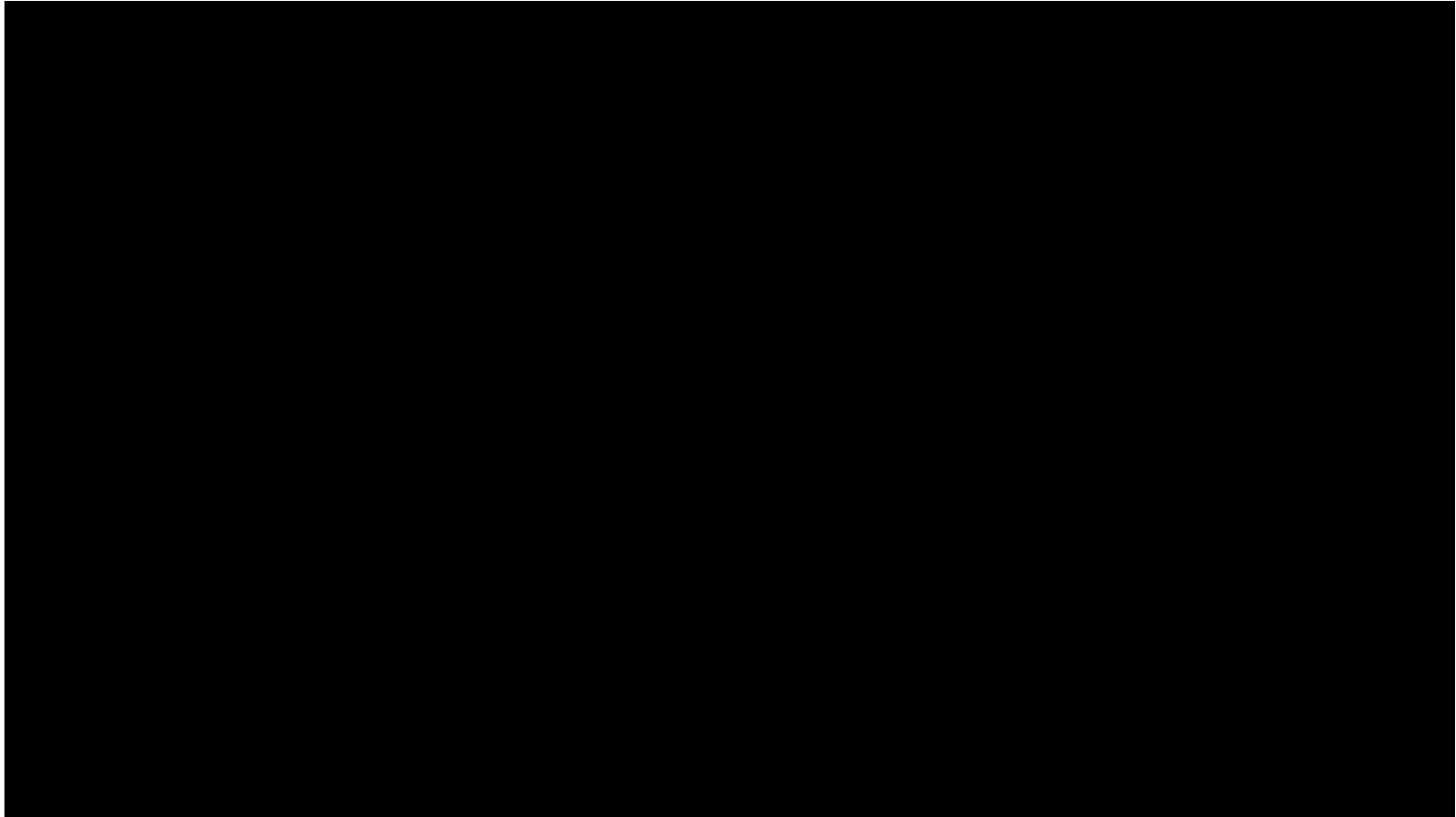
- Anesthesia related complications
- Bleeding and bleeding related complications
- Organ or Tissue damage
- Neurovascular damage
- Surgical error

## • Late Complication

- Seroma
- Infection related complications
- Mesh related complications
- PRS Rupture
- Organ or Tissue damage
- Post-operative pain
- Sequelae of Surgical error
- Recurrence





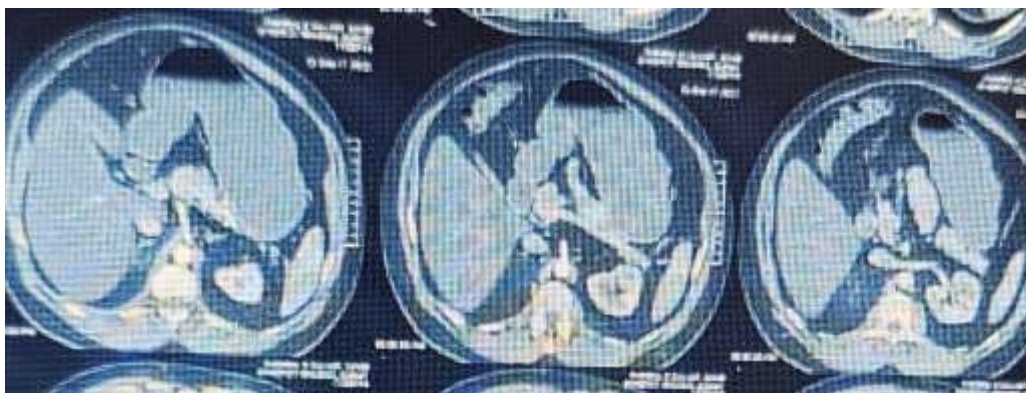
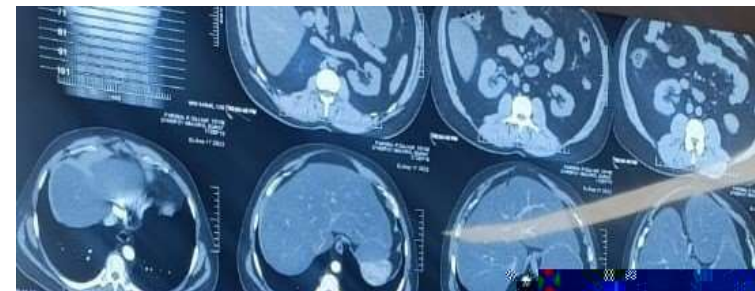


# Neuro-vascular bundle

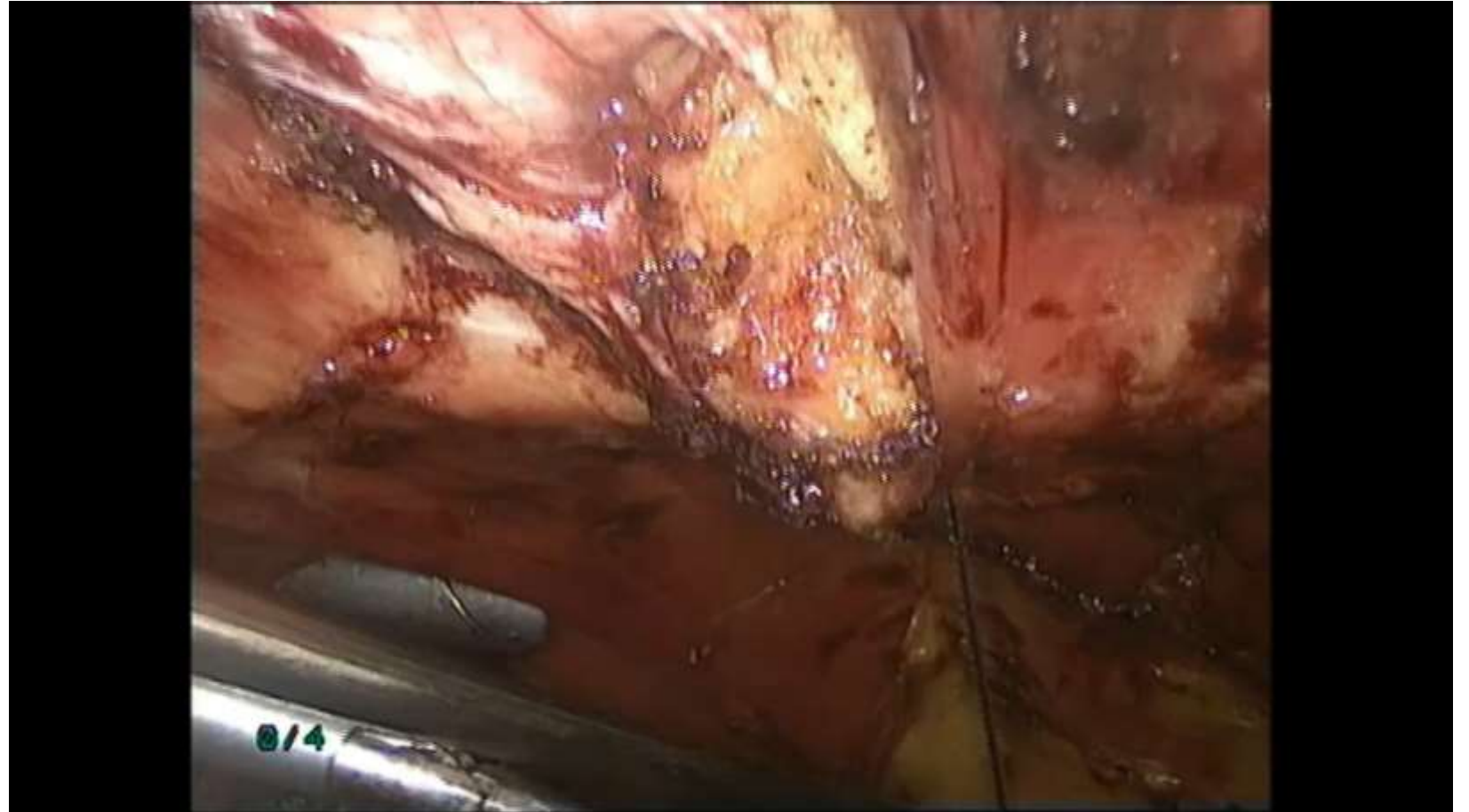


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***A case of small umbilical hernia, operated by a young surgeon  
BUT.....***

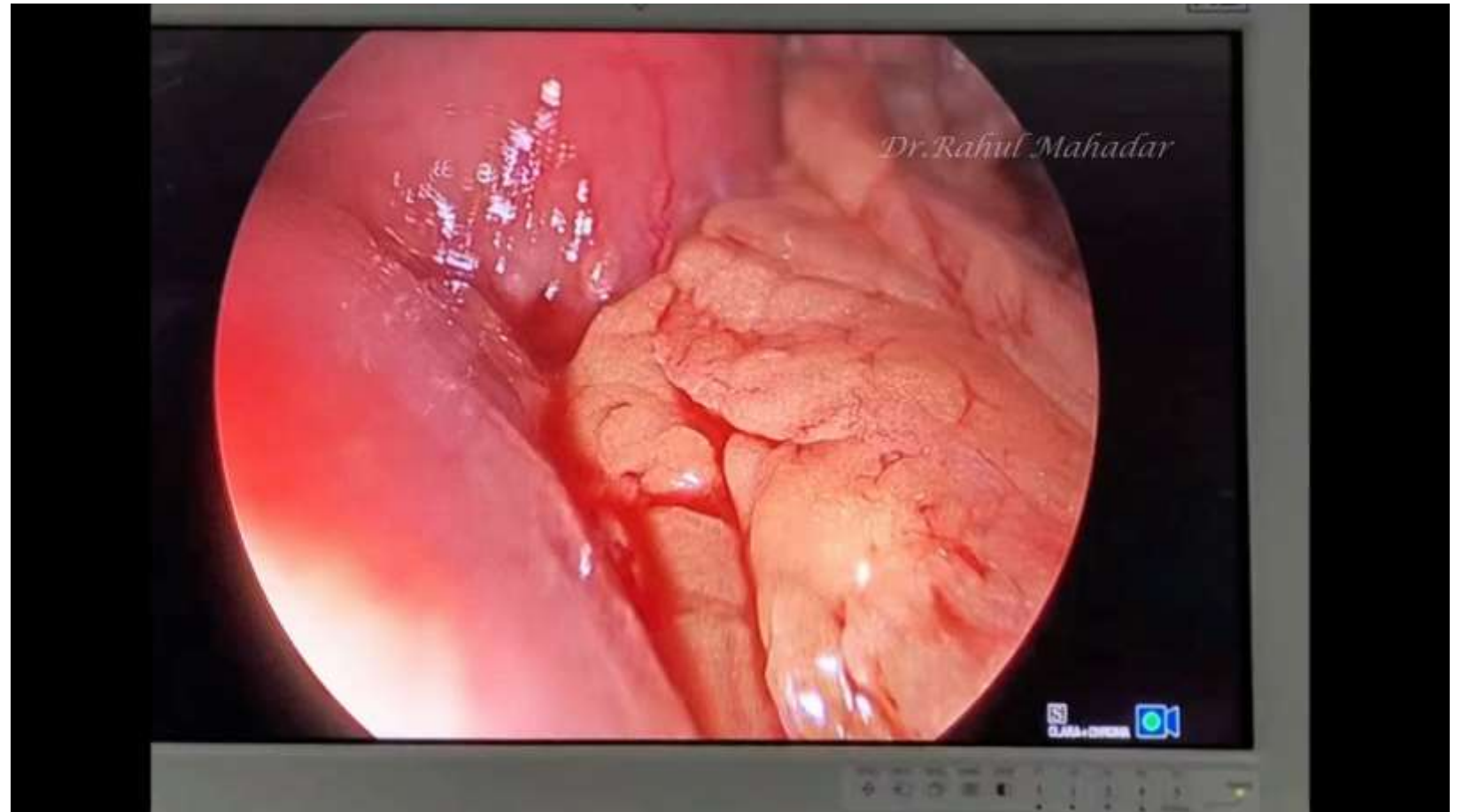


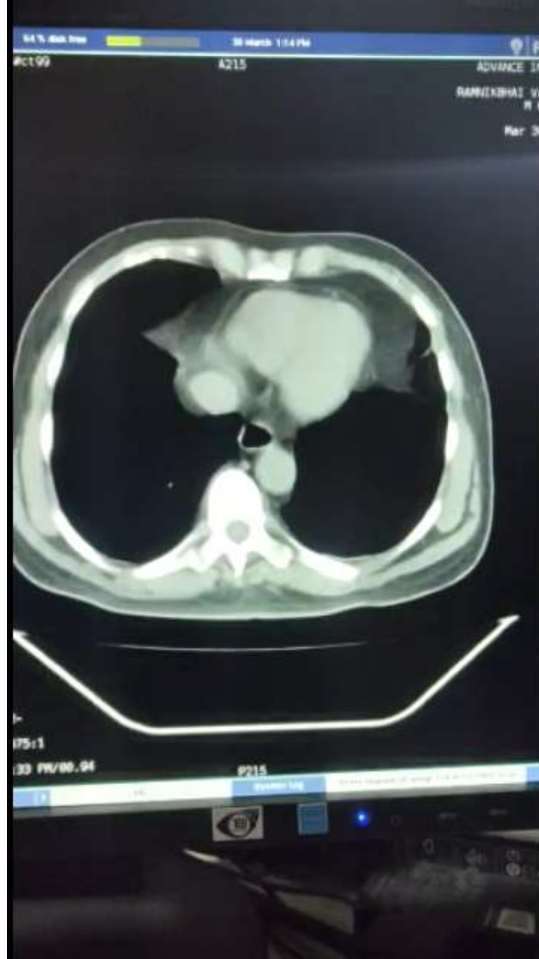
# Linea alba damage & repair





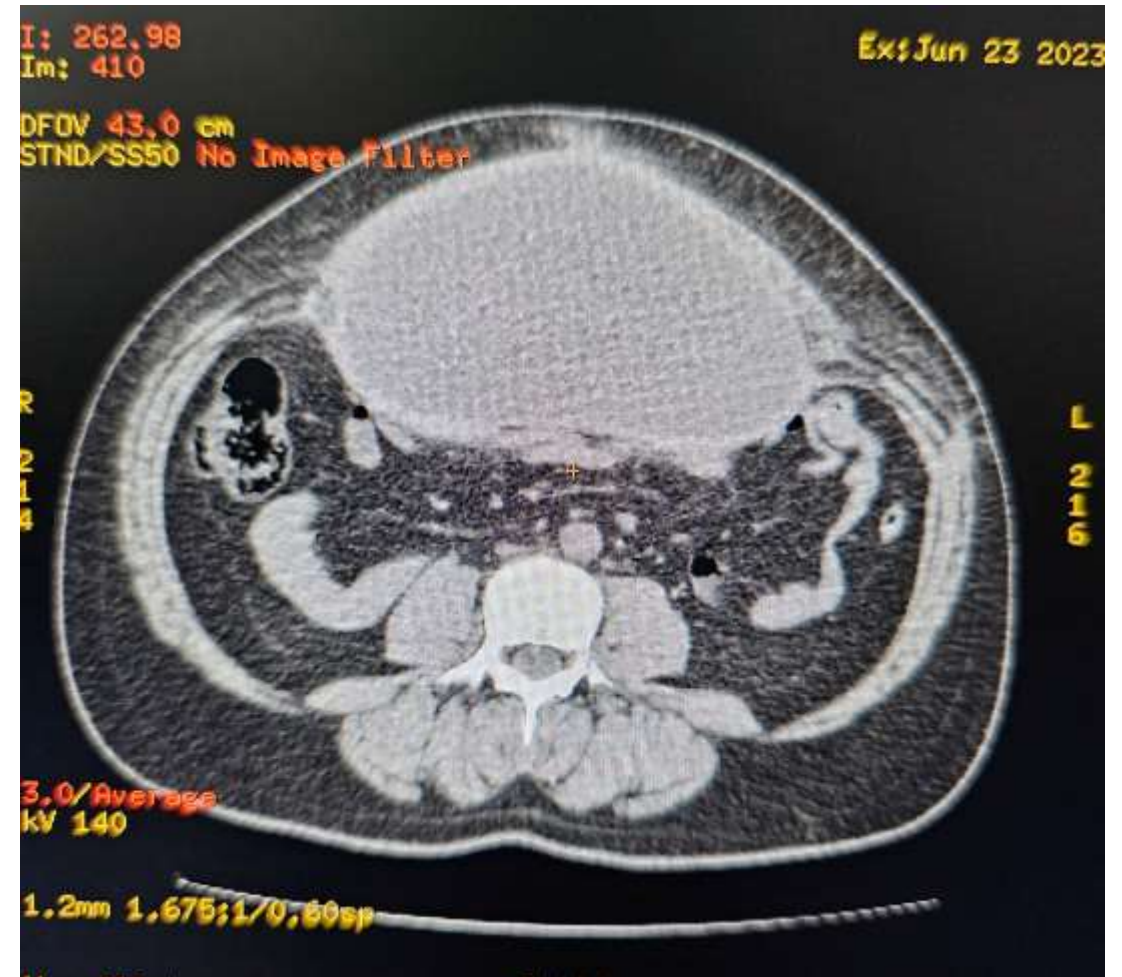
# PRS Rupture





<b>Diagnosis</b>	: -MULTIPLE VENTRAL HERNIA( SWISS-CHEEZ DEFECTS) .POST. OPERATIVE INTESTINAL OBSTRUCTION WITH ASPIRATION PNEUMONITIS
<b>History and Clinical Summary</b>	: -SWELLING IN ANTERIOR ABDOMINAL WALL IN UPPER SITE X 2 MONTH -GRADULLY INCREASE IN SIZE & MORE ON WORKING & WALKING -PAIN PRESENT DULL ACHING IN NATURE,GRADULLY INCREASE IN SEVEARITY O/E:- P/A - MULTIPLE SWELLING PRESENT IN UPPER ABDOMEN -REDUCIBLE IN NATURE
<b>Medical Rx</b>	: -PATIENT ADMITTED FOR SURGERY OF MULTIPLE VENTRAL HERNIA . -ON 2ND POST OPERATIVE DAY PATIENT HAD VOMITING & POST VOMITING RESPIRATION DISTRESS &VPAIN IN ABDOMEN -PHYSICIAN CONSULTATION DONE (DR.SHIRISH) ON 17/11/22 & O2 SUPPORT STARTED -ON INVESTIGATION (HRCT LUNG) ASPIRATION PNEUMONIA DIAGNOSED & TREATED ACCORDINGLY. -ON 3RD &4TH POST OPERATIVE DAY VOMITING PRESENT & AS PER X-RAY ABDOMEN STANDING PATIENT DEVELOPED SUBACUTE INTESTINAL OBSTRUCTION & MANAGED ACCORDINGLY(CECT ABDOMEN DONE ) -RT ASPIRATION , O2 SUPPORT , NBM & SUPPORTING CARE -GRADULLY ON 7TH DAY ORALLY STARTED -PATIENT TOLERATED ORALLY & DISCHARGE IN STABLE CONDITION ON 22/11/22
<b>Radiological Investigations</b>	: -CECT ABDOMEN -HRCT THORAX CHEST X - RAY
<b>Surgical Note</b>	: -OPEN VENTRAL HERNIA REPAIR WITH BILATERAL(TAR) TRANSVERSE ABDOMINIS RELEASE WITH LARGE PROLENE(15X15 CM) MESH PLASTY DONE UNDER G/A ON 14/11/22 -INTRAOPERATIVE FINDINGS : LARGE MULTIPLE SUPRAUMBILICAL MIDLINE & RIGHT PERAMEDIAN DEFECT PRESENT -POST RECTUS SHEATH DEFICIENT ON RIGHT SIDE -FOR MIDLINE RESTORATION OF POSTERIOR RECTUS SHEATH BILATERAL UPPER TARDONE.
<b>Laboratory Investigations</b>	: -11/11 :-HB- 16.3, WBC - 5900 , PT COUNT - 1,50,000 , B.GROUP - B+VE , RBS -107, S.CREAT - 1.0, UREA -21 , SGPT-23, PT-11.5, HIV & HBSAG -VE -17/11 :-HB- 16.1, WBC - 7700 , PT COUNT - 1,48,000 , S.CREAT -0.90
<b>Condition On Discharge</b>	: -PATIENT VITALLY STABLE & NO PAIN, NO VOMITING
<b>Discharge Rx(Advise On Discharge)</b>	: -TAB.CEFIXIME (200) 1-0-1 X 5 DAY -TAB.ZERODOL SP 1-0-1 X 5 DAY -TAB.PANTO P 1-0-1 X 5 DAY -LIQ CREMAFFIN 20ML HS

# Large seroma after ETEP Rives Stoppa





# Floating mesh





## In cases of complication of Bowel Injury

- CDC Class 1 – one should use prosthesis
- CDC Class 2 – Prosthesis can be used (Level 1) (without any spillage)
- CDC Class 3 & 4 - Primary suture repair/ Biological Mesh

Birindelli et al. World Journal of Emergency Surgery (2017) 12:37 DOI 10.1186/s13017-017-0149-



## Complications - Minimally invasive eTEP resulted in a rate of

A total of 13 studies were identified involving 918 patients

- surgical site infection of 0%
  - rate of seroma of 5%
  - rate of major complications intraoperative complications was 2% with a
  - conversion rate of 1.0% .
  - Mean hospital length of stay was 1.77 days
  - rate of recurrence was 1%
- After a median follow-up of 6.6 months

**Short-term outcomes of minimally invasive retromuscular ventral hernia repair using an enhanced view totally extraperitoneal (eTEP) approach: systematic review and meta-analysis**

[D Aliseda<sup>1</sup>](#), [C Sanchez-Justicia<sup>2,3</sup>](#), [G Zozaya<sup>2,3</sup>](#), [J Lujan<sup>2</sup>](#), [A Almeida<sup>2</sup>](#), [N Blanco<sup>2</sup>](#), [P Martí-Cruchaga<sup>2,3</sup>](#), [F Rotellar<sup>2,3</sup>](#)



# CONCLUSION<sub>s</sub>

- Addressing recurrences and complications in ventral hernias among obese patients demands a **nuanced and individualized** approach.
- By integrating **advanced surgical techniques**, thoughtful **mesh selection**, and **comprehensive patient care**, one can significantly enhance the success of hernia repairs
- **Minimal access techniques** has better outcome than open repair however open repair becomes mandatory in some situations.
- **Sublay placement** of mesh has least recurrences and SSOs.
- Continued research and collaboration in this field will further refine our strategies, leading to improved patient outcomes and quality of life.



