

# Parastomal hernia repair: which operation for which patient?

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# Disclosure

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No disclosures

# PARASTOMAL HERNIA

## Definition:

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Is an incisional type of hernia related to abdominal wall

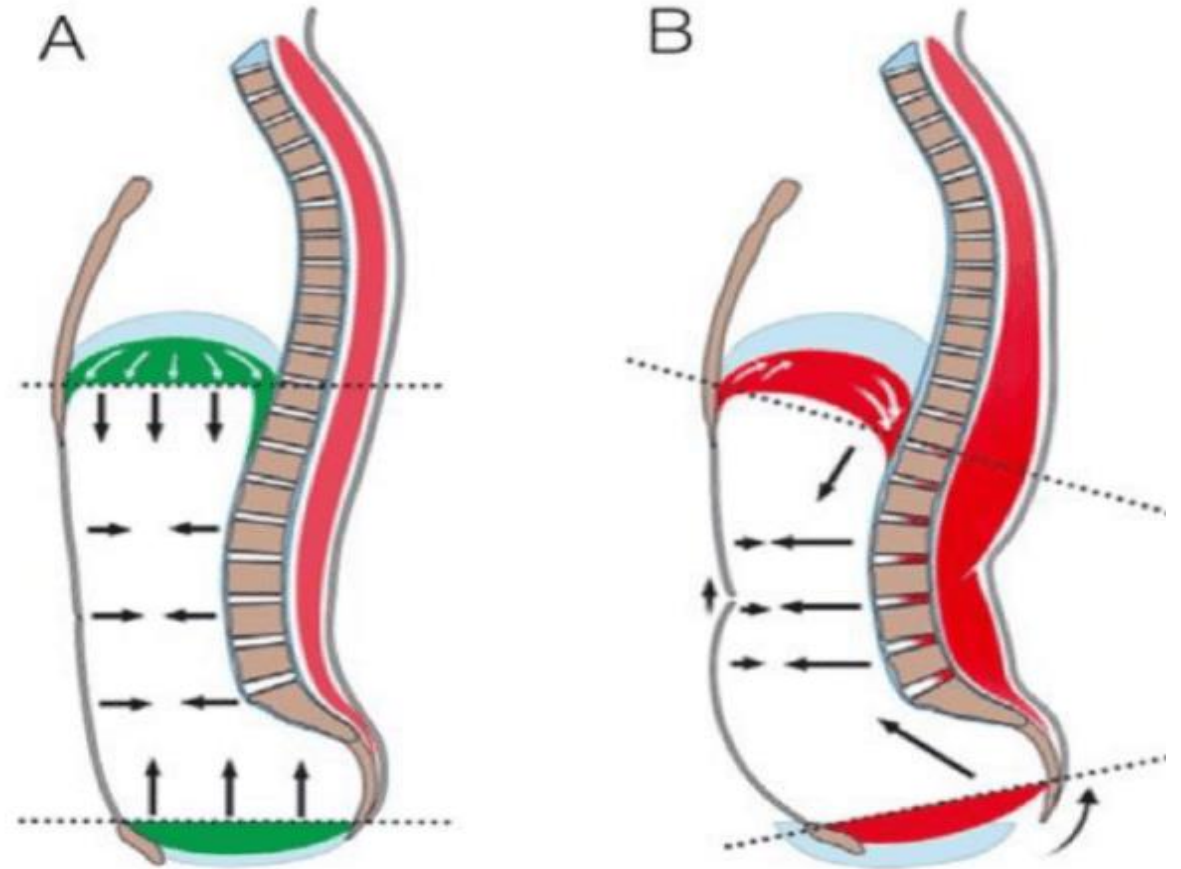
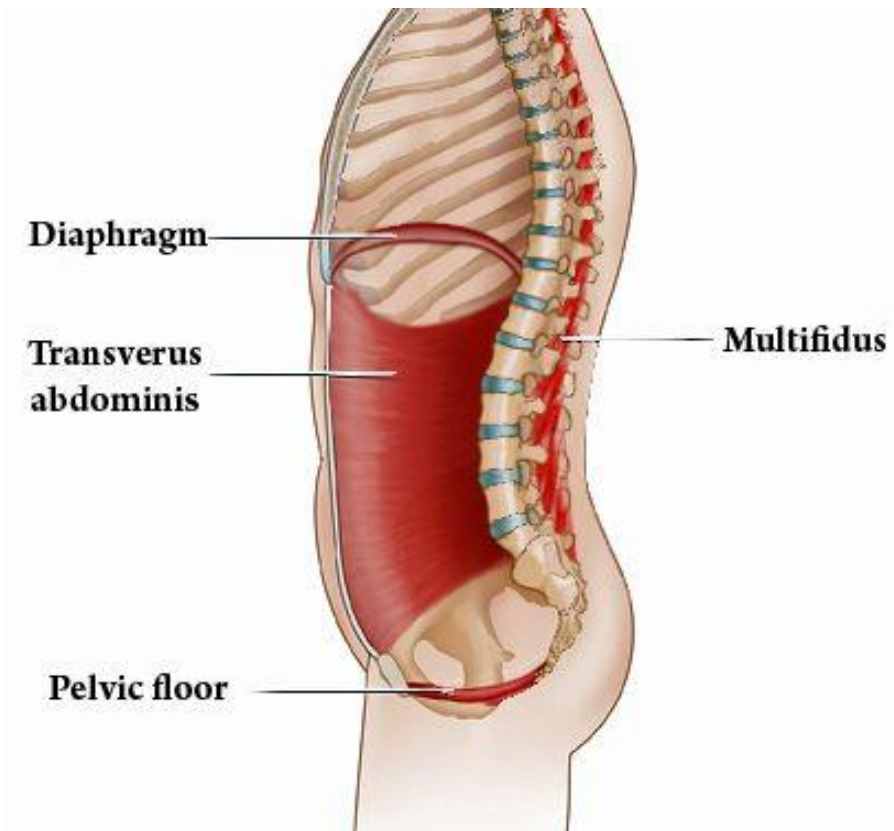
A stoma is a potential hernia

50% of patients with stoma will develop parastomal hernia

Concomitant midline hernias are common.

# PARASTOMAL HERNIA

## How it affect abdominal core function?



# PARASTOMAL HERNIA

## why to repair?

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Poorly fitting appliance ,leak

Skin irritation/ Infections

Incarceration

To maintain a good functioning core muscles.



# PARASTOMAL HERNIA

## Risk factors (technical):

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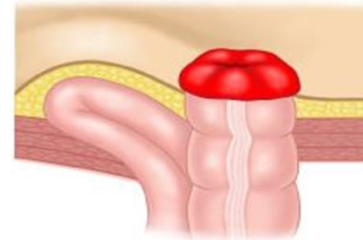
1. Lateral stomas, midline stoma
2. Wide aperture (more than 2 fingers)
3. Hematoma, infection, tissue under tension



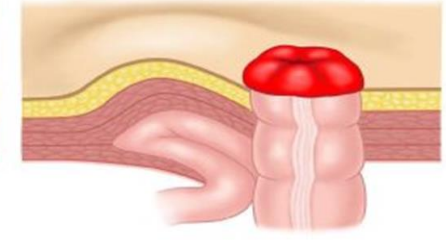
# PARASTOMAL HERNIA classification:

<b>EHS</b> Parastomal Hernia Classification		Small ≤ 5 cm	Large >5 cm
Concomitant Incisional Hernia	No	<b>I</b>	<b>III</b>
	Yes	<b>II</b>	<b>IV</b>
Primary <input type="checkbox"/>		Recurrence <input type="checkbox"/>	

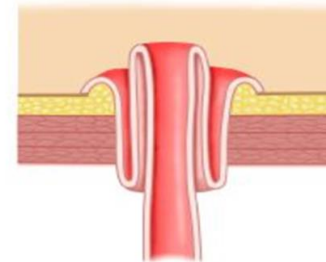
**A. Subcutaneous**



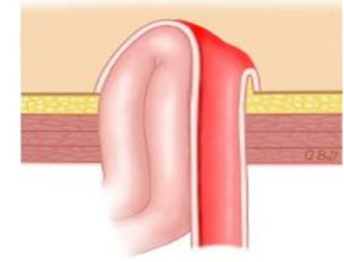
**B. Interstitial**



**C. Perstomal**



**D. Intrastomal**



# PARASTOMAL HERNIA

## classification:

Parastomal hernia require simple repairs	Parastomal hernia requires abdominal wall reconstruction (AWR)
<p>Small defects &lt; 5cm , no added risk factors , no other hernia associated</p> <p>TYPE I</p>	<p>Larger defects (TYPE II,III, IV)</p> <p>Loss of domain</p> <p>Associated other hernias</p> <p>Obesity</p> <p>BA, COPD</p>
<p>Primary suture repairs</p> <p>Relocation</p> <p>Mesh repairs (hernioplasty)</p>	<p>TAR (posterior component separation)</p> <p>BOTOX</p> <p>Anterior component separation</p> <p>Progressive pneumoperitoneum</p> <p>Fasciotenes</p>

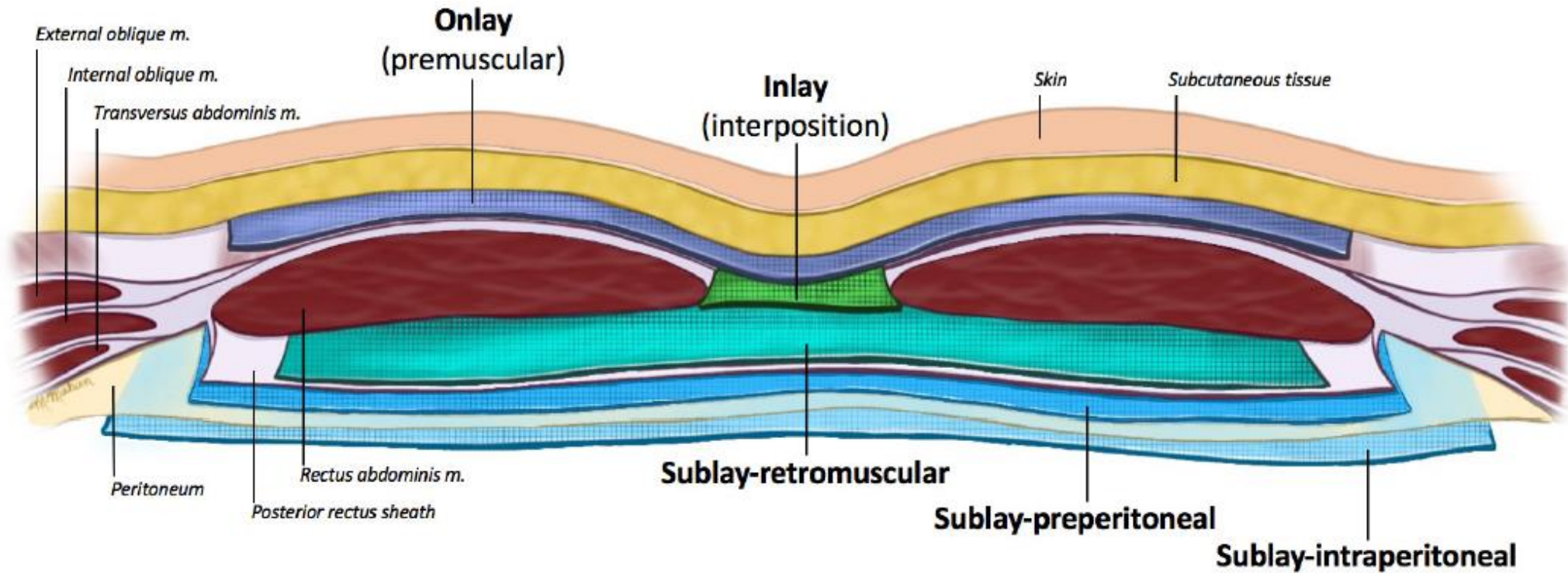


# Surgical management of parastomal hernia: primary suture repair Relocation

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Limited use

# Surgical management of parastomal hernia: Mesh repair



# Surgical management of parastomal hernia: Mesh repair

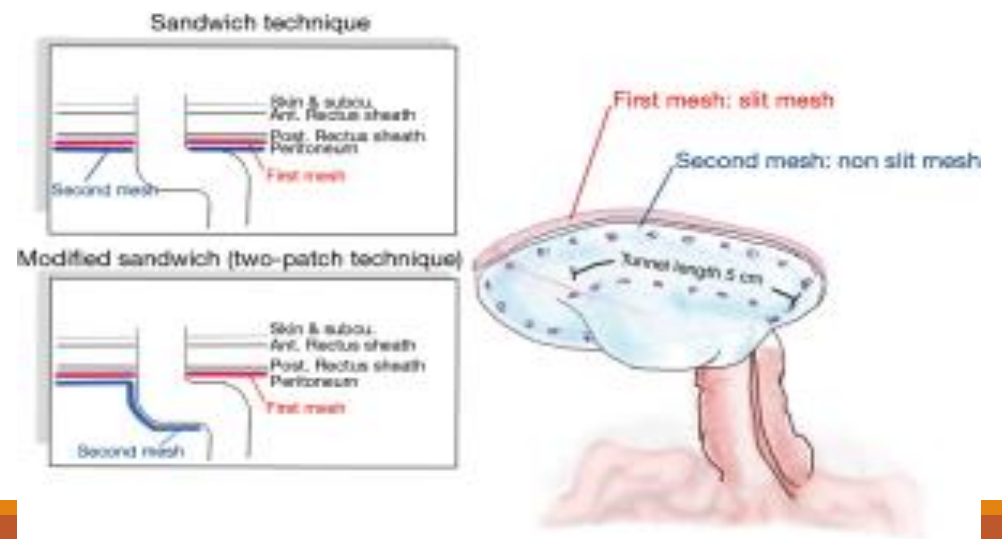
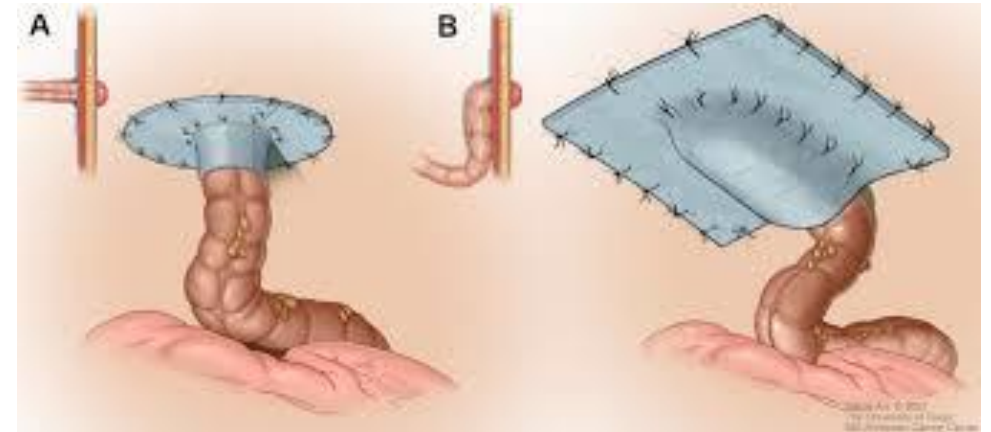
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## **Approaches :**

1. Open
2. Laparoscopic
3. Hybrid
4. Robotic

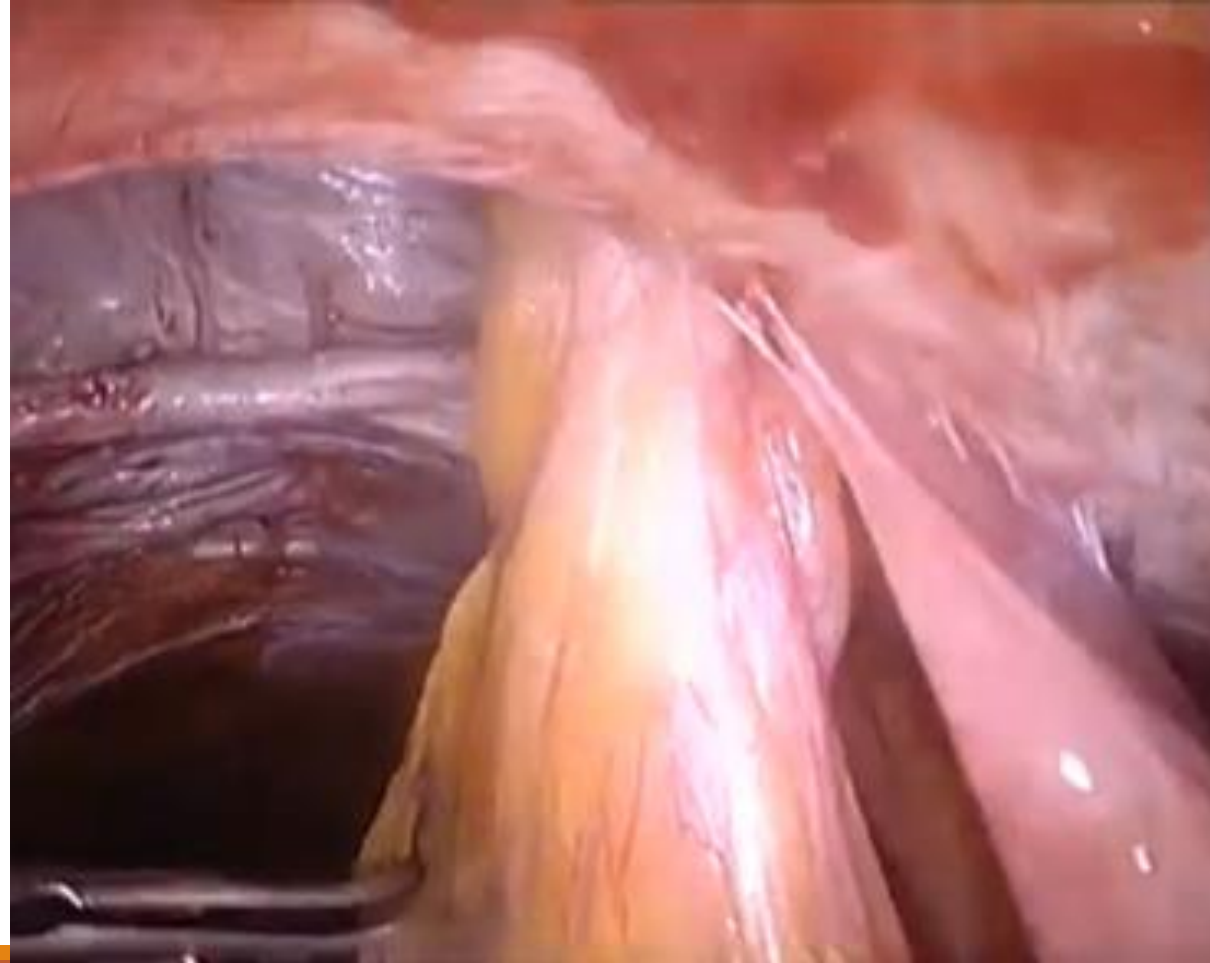
# Surgical management of parastomal hernia: Mesh repair (Type I)

1. Sugarbaker
2. Keyhole (mesh split)
3. Sandwich technique



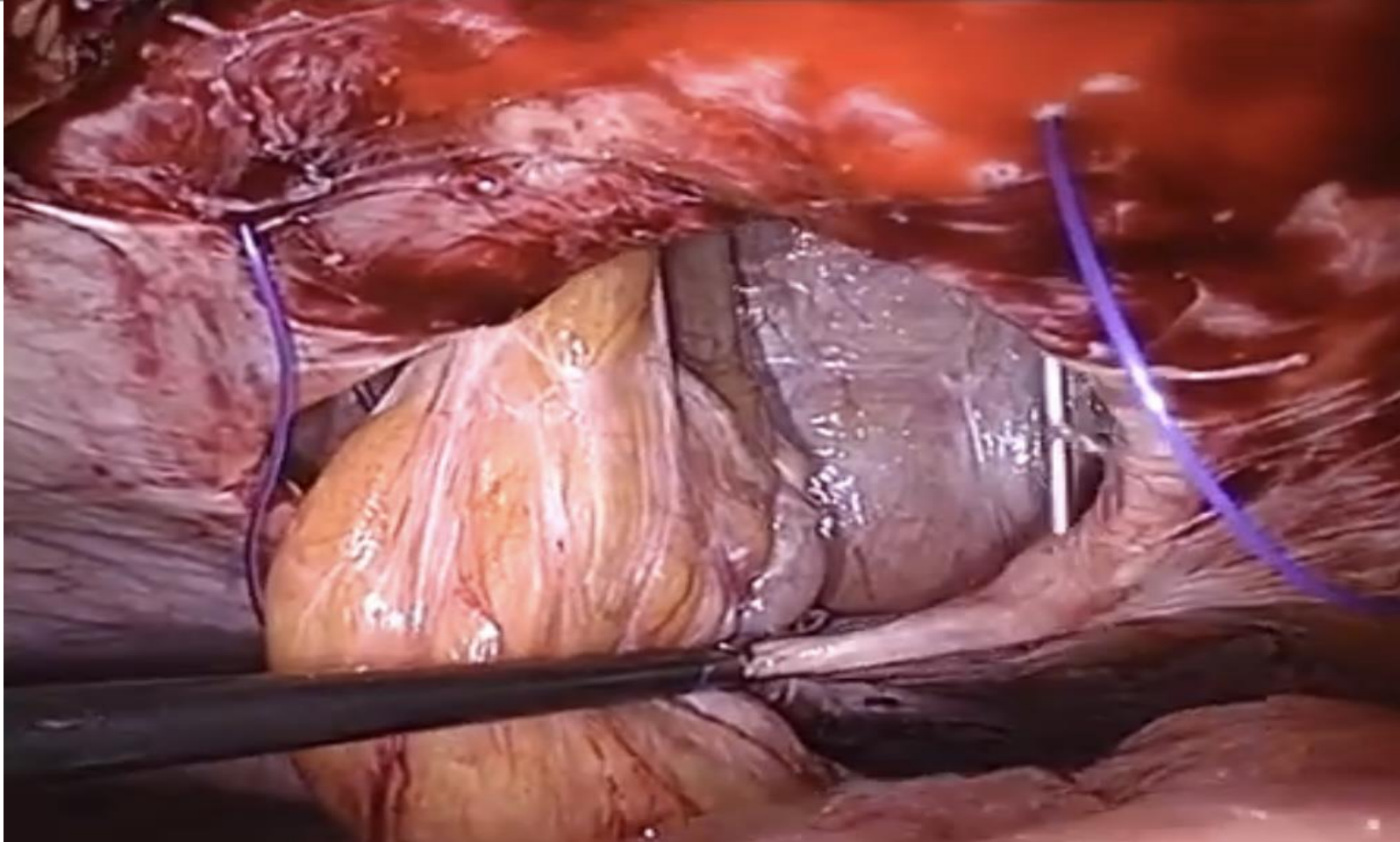
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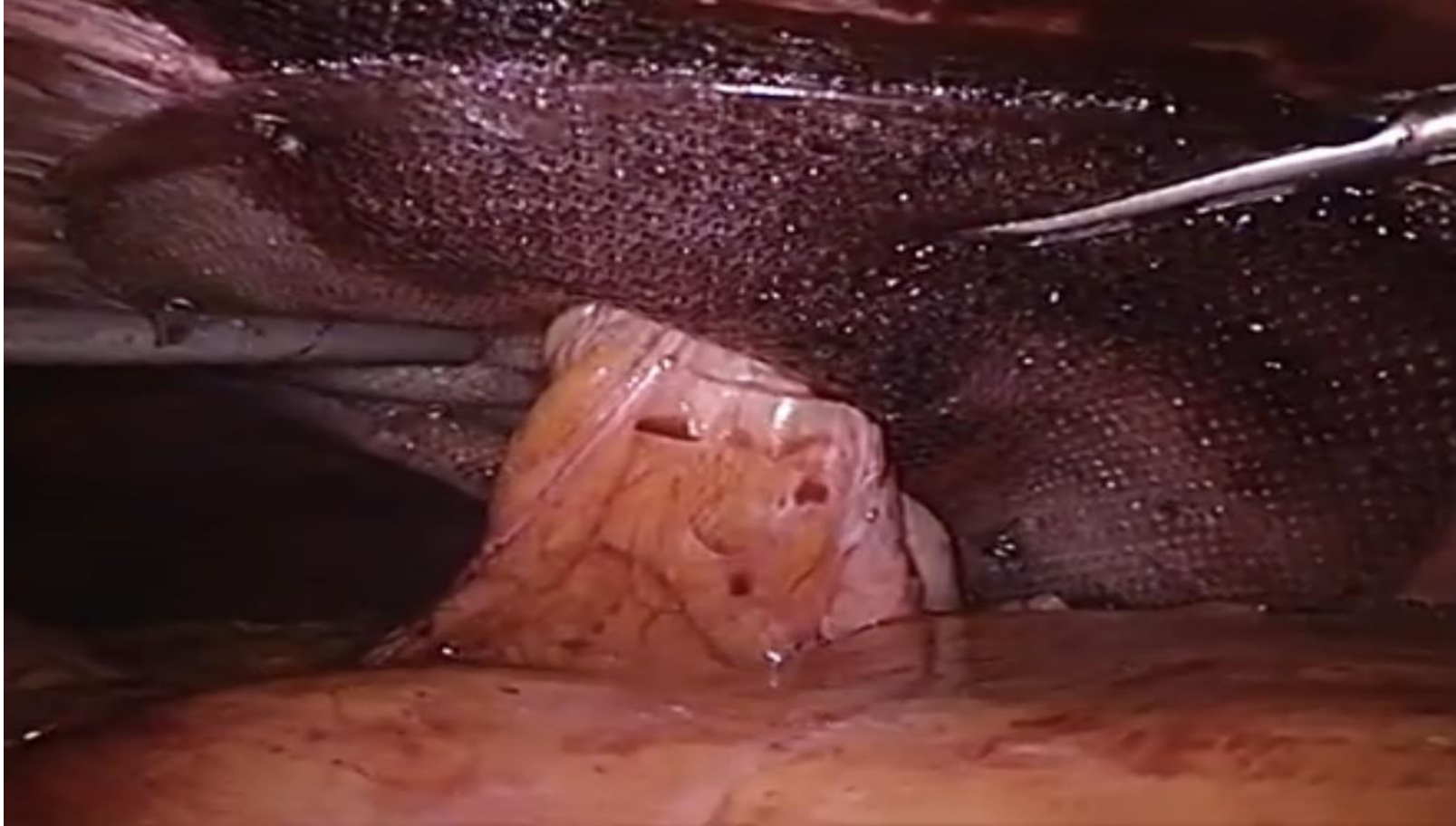
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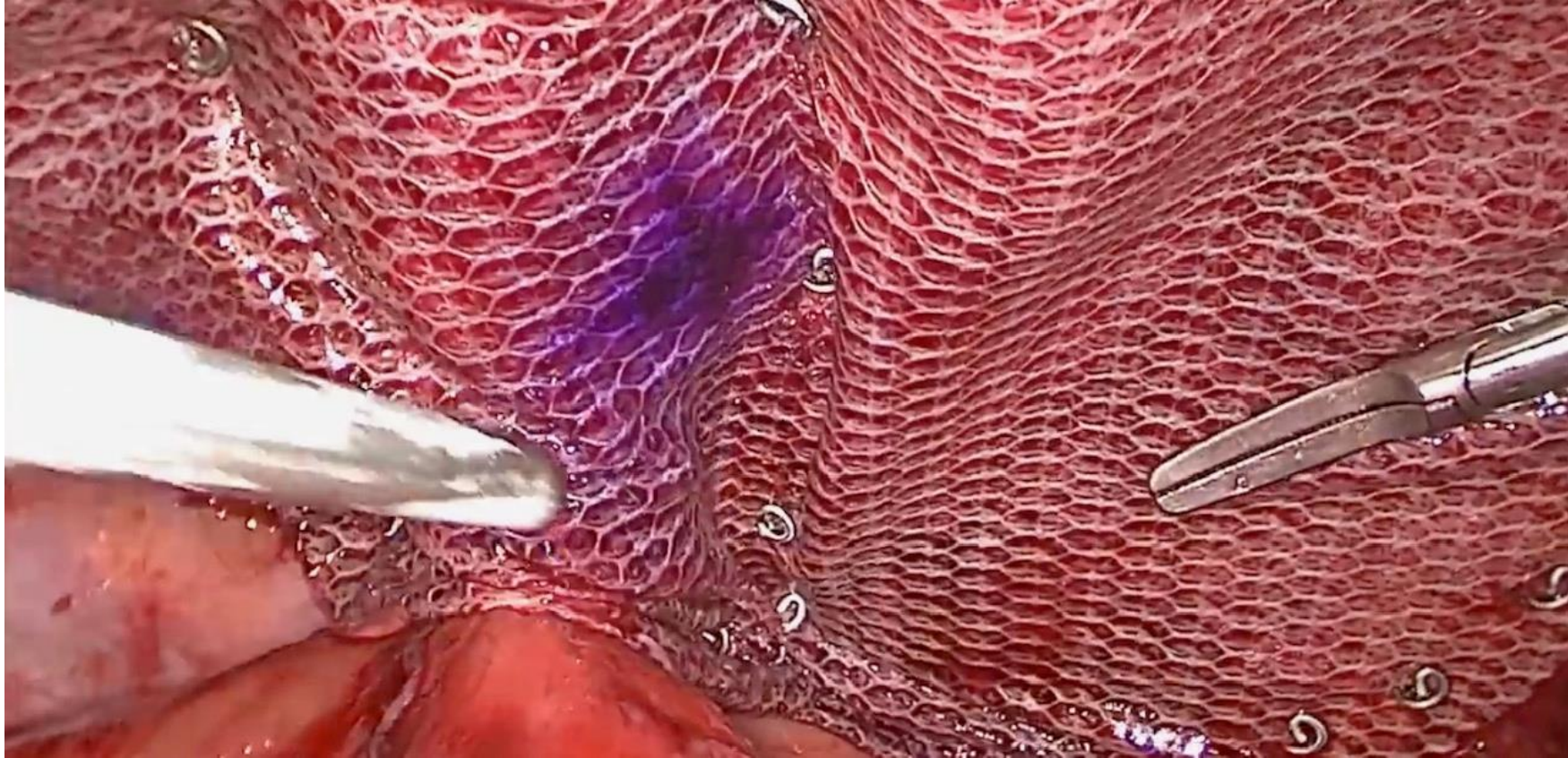
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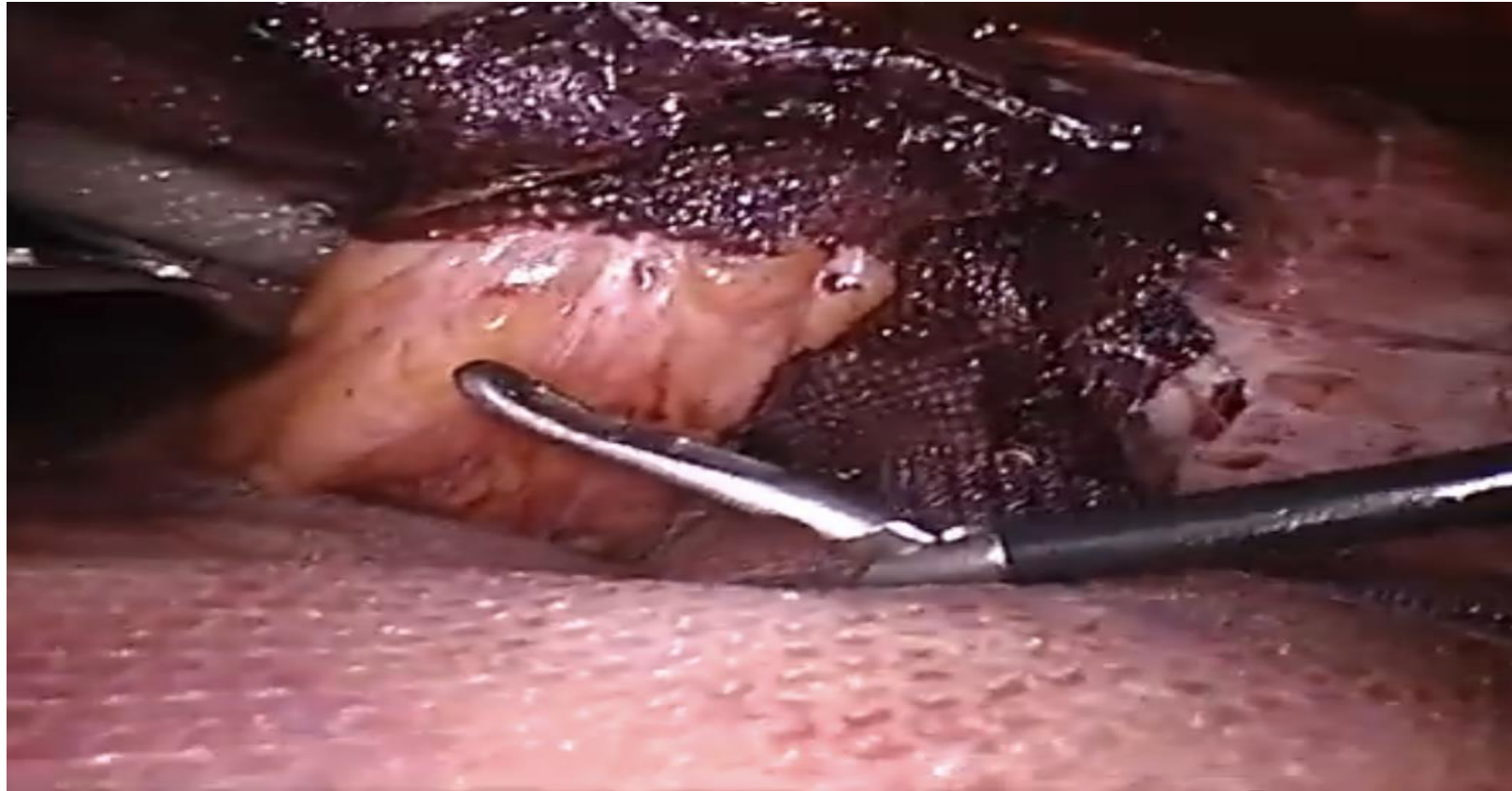
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# Surgical management of parastomal hernia: Mesh repair (Type I)

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# Surgical management of parastomal hernia: Mesh repair (Type I)

[Journal of Gastrointestinal Surgery](#) > Article

## Sugarbaker Versus Keyhole Repair for Parastomal Hernia: a Systematic Review and Meta-analysis of Comparative Studies

SSAT Quick Shot Presentation

Published: 05 December 2022

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**Journal of Gastrointestinal  
Surgery**

[Andrew M. Fleming](#) , [Alisa L. Phillips](#),

... [Elizabeth H. Wood](#)  Show authors

 986 Accesses  13 Citations

## Conclusions

Though there were lower rates of parastomal hernia recurrence with Sugarbaker repairs on overall analysis, this phenomenon disappeared on subgroup analysis of modern studies.

Randomized controlled trials with contemporary cohorts would help further evaluate these repairs and minimize potential bias.

# Surgical management of parastomal hernia: Mesh repair (Type I)

Journal of Gastrointestinal Surgery

Volume 27, Issue 3, March 2023, Pages 573-584

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SSAT Quick Shot Presentation

## Sugarbaker Versus Keyhole Repair for Parastomal Hernia: a Systematic Review and Meta-analysis of Comparative Studies

Andrew M. Fleming<sup>1</sup> ✉, Alisa L. Phillips<sup>2</sup>,  
Justin A. Drake<sup>1</sup>, Megan G. Gross<sup>1</sup>, Danny Yakoub<sup>3</sup>,  
Justin Monroe<sup>4</sup>, Nathan M. Hinkle<sup>4</sup>, David Shibata<sup>4</sup>,  
Elizabeth H. Wood<sup>4</sup>

## Conclusions

PSH causes significant patient distress, and multiple approaches have been described in the literature with variable success. SB repairs, whether performed with an open or minimally invasive approach, have previously been reported to have lower recurrence rates for the repair of PSH.

However, the results of our subgroup analysis of more modern studies call this conclusion into question. The results of the ongoing randomized controlled trial will help address concerns regarding experimental...

# Surgical management of parastomal hernia: Mesh repair ( with AWR)

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1. Pauli's parastomal hernia repair (PPHR)
2. Stappled Transabdominal ostomy reinforcement with retromuscular mesh (STORRM)
3. BOTOX

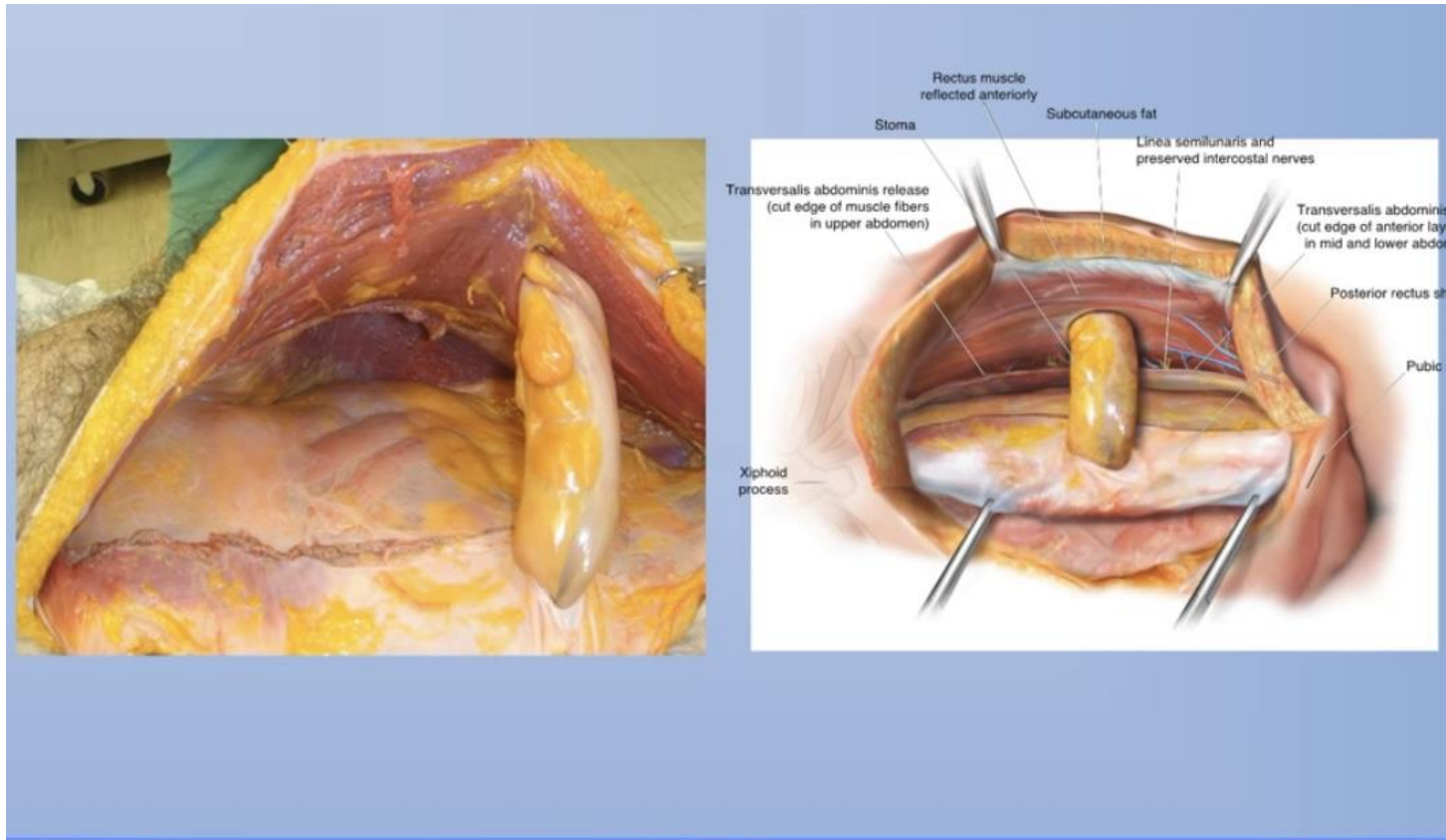


# Surgical management of parastomal hernia: Mesh repair ( AWR)

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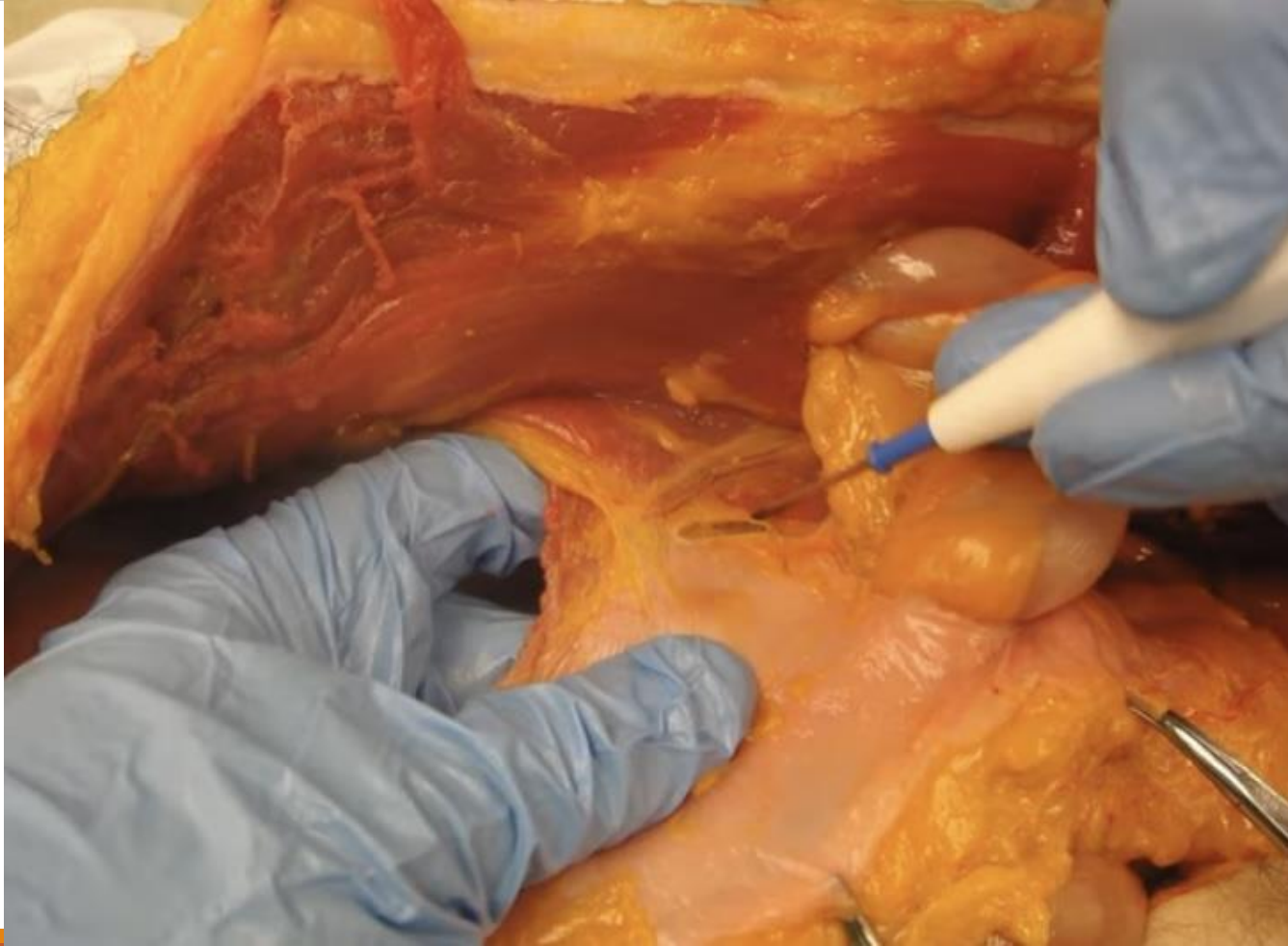


# Surgical management of parastomal hernia: Mesh repair ( Pauli's operation)



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# Surgical management of parastomal hernia: Mesh repair ( Pauli's operation)

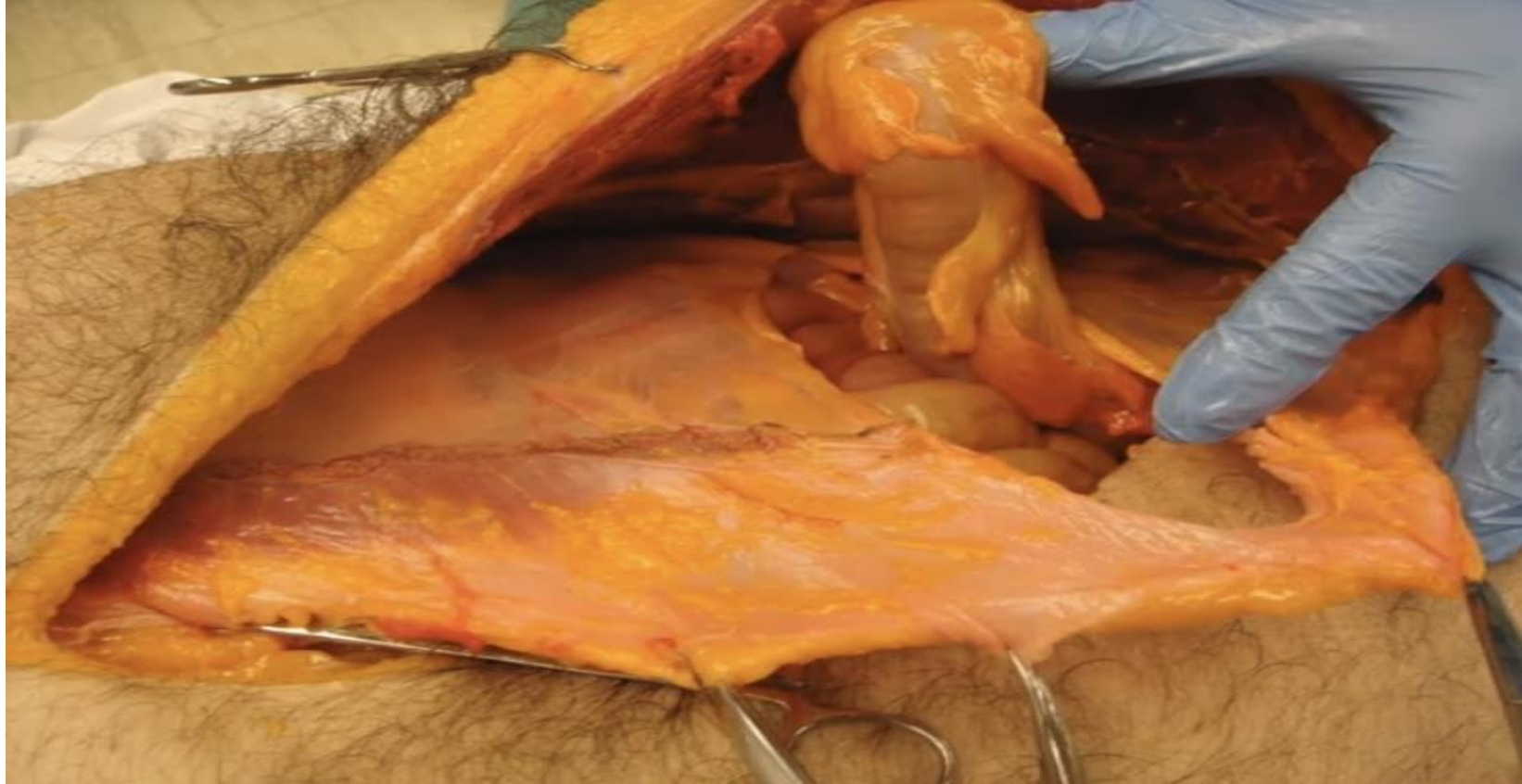
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# Surgical management of parastomal hernia: Mesh repair ( Pauli's operation)

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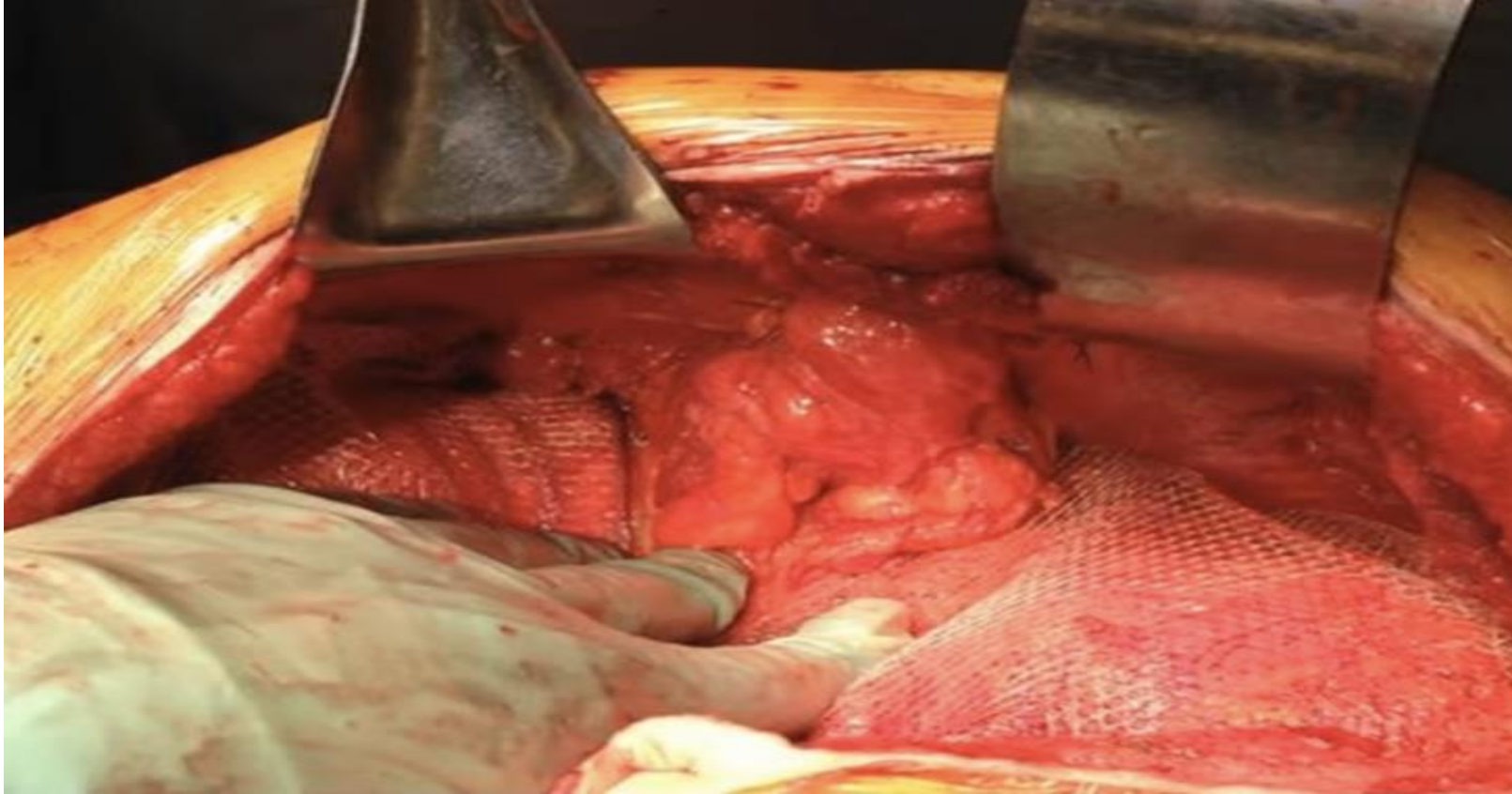
# Surgical management of parastomal hernia: Mesh repair ( Pauli's operation)

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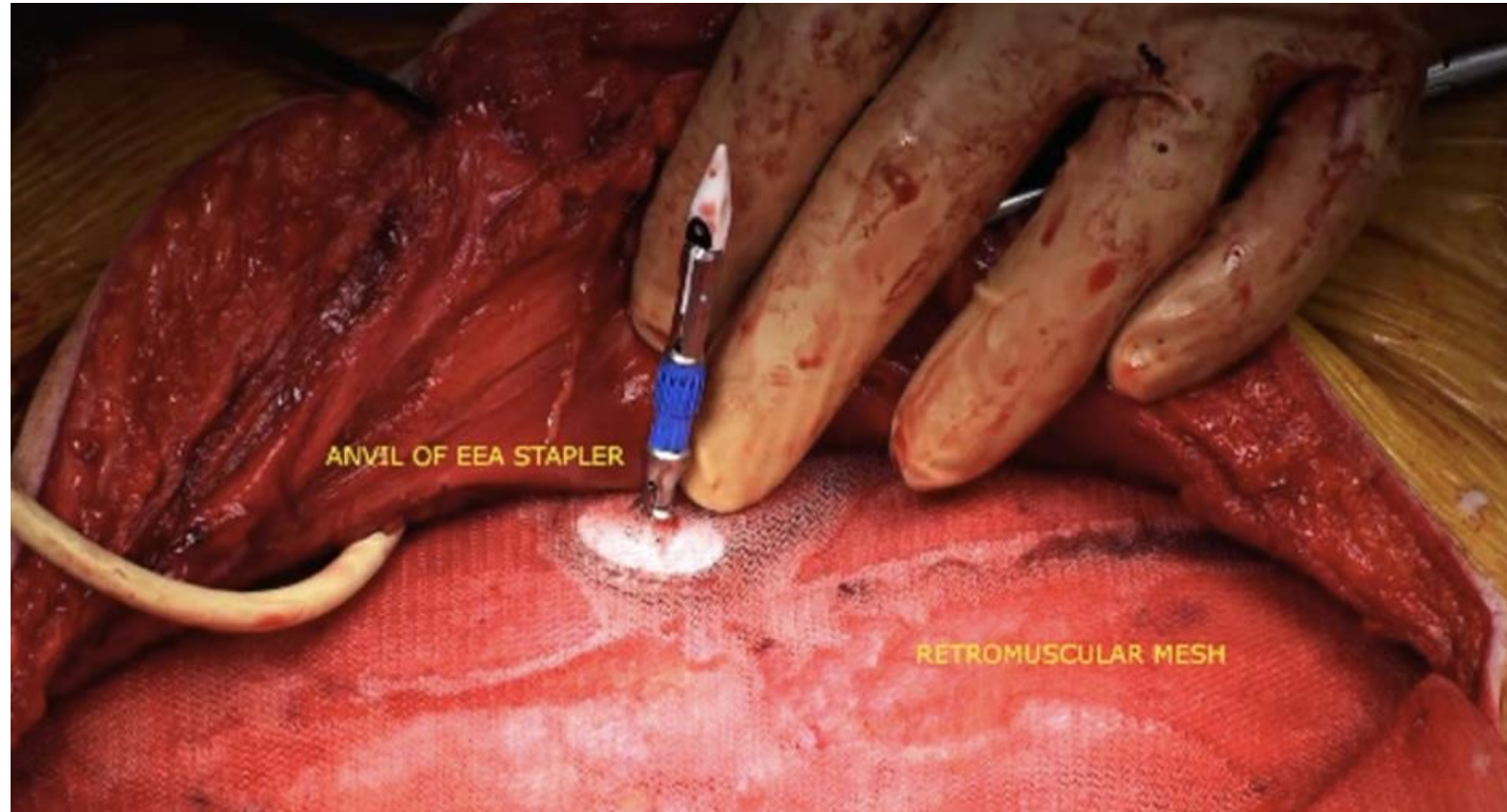
# Surgical management of parastomal hernia: Mesh repair ( Pauli's operation)

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## Surgical management of parastomal hernia:

Mesh repair Stapled Transabdominal ostomy reinforcement with retromuscular mesh (STORRM)



## Surgical management of parastomal hernia:

Mesh repair Stappled Transabdominal ostomy reinforcement with retromuscular mesh (STORRM)

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# Surgical management of parastomal hernia: Botox injection:



# Surgical management of parastomal hernia: Botox injection:



# Parastomal Hernia Prevention

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**Attention to proper surgical technique:**

- Well vascularized
- Non-traumatized
- Tension free anastomosis between the skin and intestine

**A stoma should never be brought out through the laparotomy wound**

**The stoma should be brought through the rectus abdominis muscle**

**Higher rates of hernia formation occur when the stoma is brought lateral to the rectus**



# Parastomal Hernia Prevention

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Bladder Cancer

## Preventing Parastomal Hernia After Ileal Conduit by the Use of a Prophylactic Mesh: A Randomised Study




















Fredrik Liedberg<sup>a b †</sup>  , Petter Kollberg<sup>a b c †</sup>,  
Marie Allerbo<sup>c</sup>, Gediminas Baseckas<sup>a b</sup>,  
Johan Brändstedt<sup>a b</sup>, Sigurdur Gudjonsson<sup>d</sup>,  
Oskar Hagberg<sup>a e</sup>, Ulf Håkansson<sup>b</sup>, Tomas Jerlström<sup>f</sup>,  
Annica Löfgren<sup>a</sup>, Oliver Patschan<sup>a b</sup>, Anne Sörenby<sup>a b</sup>,  
Mats Bläckberg<sup>c</sup>

## Conclusions

Prophylactic implantation of a lightweight mesh in the sublay position decreases the risk of PSH when constructing an ileal conduit without increasing the risk of complications related to the mesh. The median surgical time is prolonged by mesh implantation.

# parastomal hernia prevention

## EHS Rapid Guideline: Evidence-Informed European Recommendations on Parastomal Hernia Prevention—With ESCP and EAES Participation

 Cesare Stabilini<sup>1\*</sup>,  Filip E. Muysoms<sup>2</sup>,  Alexander A. Tzanis<sup>3</sup>,  Lisa Rossi<sup>4</sup>,  Ourania Koutsouroumpa<sup>5</sup>,  Dimitris Mavridis<sup>5</sup>,  Michel Adamina<sup>6</sup>,  Umberto Bracale<sup>7</sup>,  Henk-Thijs Brandsma<sup>8</sup>,  Stéphanie O. Breukink<sup>9</sup>,  Manuel López Cano<sup>10</sup>,  Samantha Cole<sup>11</sup>,  Suzanne Doré<sup>12</sup>,  Kristian Kiim Jensen<sup>13</sup>,  Marianne Krosggaard<sup>14</sup>,  Neil J. Smart<sup>15</sup>,  Christoffer Odensten<sup>16</sup>,  Chantal Tielemans<sup>17</sup> and  Stavros A. Antoniou<sup>18</sup>

**Conclusion:** This rapid guideline provides evidence-informed, interdisciplinary recommendations on the use of prophylactic mesh in patients with an end colostomy.

Further, it identifies research gaps, and discusses implications for stakeholders, including overcoming barriers to implementation and specific considerations regarding validity.

# Take home message

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- Parastomal hernia is an incisional type of hernia with 50% incidence or more.
- Functional repair maintaining a normal core function is required.
- Transrectal stoma with small aperture help to prevent hernia recurrence.
- Small hernias can be managed using Sugarbaker, keyhole or sandwich technique with no superiority for any of them regarding recurrence.
- Abdominal wall reconstruction techniques are gaining popularity in repairing complex parastomal hernias using TAR, Pauli's operation, BOTOX injection

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Thank  
You

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