

MANAGING THE INABILITY TO CLOSE FASCIA: TECHNIQUE AND OUTCOMES OF SUBLAY / INLAY HERNIA REPAIR

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BACKGROUND

- Despite the use of component separation techniques and preoperative adjuncts to increase abdominal wall compliance, there are patients with **massive ventral hernias in whom anterior fascial closure cannot be achieved**.
- Failure to close the anterior fascia in transversus abdominus release (TAR) hernia repair has been associated with higher rates of recurrent hernias.
- When the anterior fascia cannot be closed, surgeons often anchor the fascial edges to the underlying sublay mesh, but this does not **reload the anterior abdominal complex** to restore core function
- We describe our experience managing this circumstance with a **sublay retromuscular mesh** and a **bridging inlay mesh to span the anterior fascial gap**.

METHODS

- Retrospective review of prospectively collected data
- Single-center, institution approved hernia registry
- All patients undergoing open bilateral TAR with **sublay retromuscular mesh** and **anterior briding inlay mesh** for inability to perform closure of the anterior fascia

RESULTS

- 6 patients with 6 incisional hernias and 1 parastomal hernia, **mean follow up team of 1.3 yrs (0 – 2.7 yrs)**
- **Recurrence rate – 0% (n=0)**
- **SSOPI – 16.7% (n=1), SSI – 33.3% (n=2)**

For repairs of massive ventral hernias where anterior fascial closure is not possible, the use of a **bridging inlay mesh with a sublay retromuscular mesh** is a safe and effective way to achieve abdominal closure and reload the anterior musculofascial complex.

Link to PDF Abstract

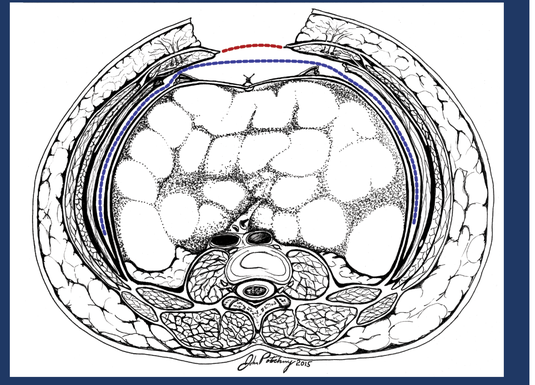


Figure 1. Schematic of the Sublay/Inlay Repair Technique. Red – anterior inlay mesh. Blue – sublay retromuscular mesh.

Table 1. Patient Demographics and Comorbidities

Patient Characteristics	n (%) or mean (SD) Overall Patients n=6
Male	2 (33.3%)
Age	61 (±13.8)
Caucasian	6 (100%)
BMI	37.7 (±7.8)
ASA	
II	3 (50.0%)
III	3 (50.0%)
Type II Diabetes	0 (0)
Smoking Status [ł]	
Never smoker	2 (33.3%)
Quit smoking	4 (66.7%)
Actively smoking	0 (0)

[ł] Quit smoking defined by >2 months before surgery

Table 2. Hernia Repair Characteristics and Outcomes

Hernia Characteristic	n (% or SD) Overall Patients n=6
Average Operative Time (mins)	529.8 (±88.1)
Preoperative Botox	2 (33.3%)
Wound Classification	
I (Clean)	4 (66.7%)
II (Clean-Contaminated)	1 (16.7%)
III/IV (Infected/Dirty)	1 (16.7%)
Approach [ł]	
Open	6 (100%)
Laparoscopic/Robotic	0 (0%)
Recurrent Hernia	4 (66.7%)
Average Hernia Area (cm)	875.5 (±454.5)
Hernia Type	
Incisional Hernia	6 (100%)
Parastomal Hernia	1 (16.7%)
Sublay Mesh Type	
Microporous heavyweight polypropylene	4 (66.7%)
Macroporous reduced weight polypropylene	2 (33.3%)
Inlay Mesh Type	
Macroporous reduced weight polypropylene	6 (100%)
Average Sublay Mesh Area (cm)	1910.1 (±774.6)
Average Inlay Mesh Area (cm)	357.3 (±201.6)
Recurrence (clinical or radiographic)	0 (0%)
SSI (superficial)	2 (33.3%)
SSI (deep)	0 (0%)
SSOPI	
Seroma	1 (16.7%)
Hematoma	0 (0%)

[ł] One patient had an incisional and parastomal hernia

CONCLUSIONS

- A sublay/inlay repair is a feasible and safe technique for instances where anterior fascia will not close
- Further study into abdominal function, quality of life, and long-term outcomes is required

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