Split Underlay Complex Abdominal wall closure for concomitant midline and parastomal hernias.

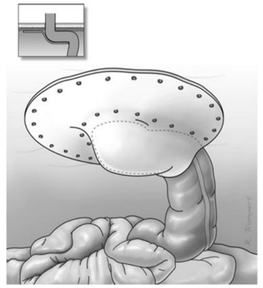
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Background

Parastomal hernias pose a unique challenge in the realm of abdominal wall reconstructions, particularly when combined with midline hernias. The intricate landscape of repairing these complex hernias demands a nuanced understanding of anatomical variations, tissue integrity, and the dynamic interplay between previous surgical interventions. Among the approaches explored, the Sugarbaker technique stands out for its safety and relatively low recurrence rate. However, its application in addressing parastomal hernias combined with re-do midline hernias reveals technical limitations. Here we describe a salvage modified sugar baker parastomal hernia repair used in a patient with concomitant ventral hernias and loss of the posterior rectus sheath due to a previous mesh explantation.

What is the Sugarbaker?

According to SAGES guidelines; the Sugarbaker technique, after repair of the hernia defect, the bowel is lateralized and covered with mesh to allow a 5cm overlap. Recent studies have suggested that the Sugarbaker approach is associated with improved outcomes.



Ayuso, S. & Shao, J. & Deerenberg, E. & Elhage, S. & Baimas-George, Maria & Heniford, B Todd & Augenstein, V.. (2021). Robotic Sugarbaker parastomal hernia repair: technique and outcomes. Hernia. 25. 1-7. 10.1007/s10029-020-02328-x.

What is ST?

SEPRAFILM Adhesion Barrier efficacy in abdominal surgery

In a randomized, prospective, double-blinded, multicenter clinical study involving 183 patients [175 evaluable] with ulcerative colitis and familiar polyposis undergoing 2-stage intestinal resection, 51% of the **Seprafilm** Adhesion Barrier group were adhesion-free at 8-12 weeks compared to 6% of control patients.[2]

SEPRAFILM Adhesion Barrier is the only adhesion prevention product approved in the US for abdominal open procedures[6]



*To prevent tab of Ventralight™ ST Mesh (1%)

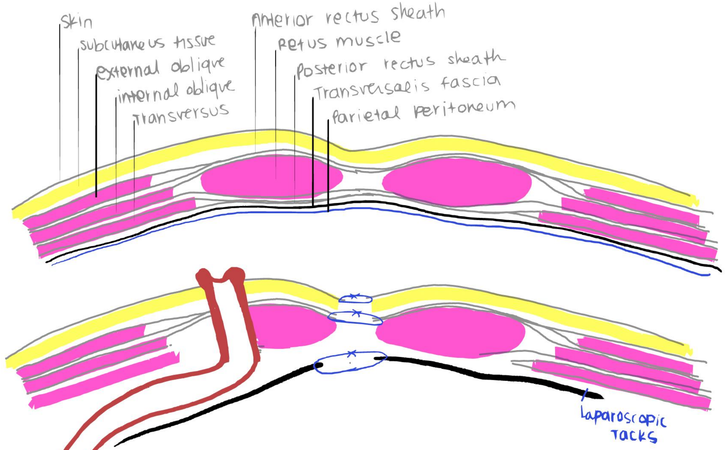
Proven

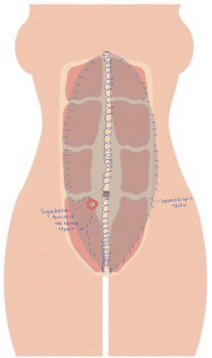
Ventralight™ Absorbable Barrier based on Sepra® Technology

- Unique hydrogel barrier swells to minimize tissue attachment to the visceral side of the mesh*
- The hydrogel barrier resorbs within 30 days providing visceral protection during the critical healing period*

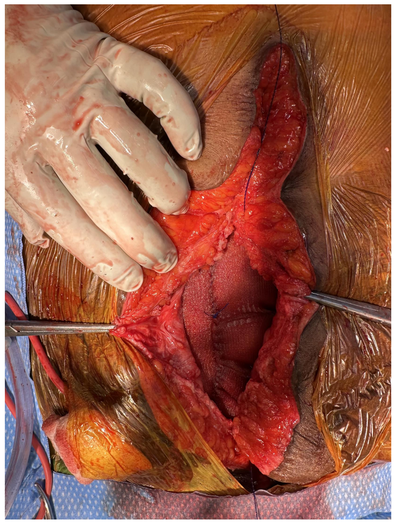
Case Scenario 1

Patient is a 70s-year-old female with a Complex previous surgical history including exploratory laparotomy with sigmoid resection in 2010 for diverticulitis. She later developed a hernia and underwent repair in 3 years prior, recurrence, and subsequent repair with mesh. This was complicated by by intra-abdominal abscesses requiring laparotomy, explantation of mesh, total colectomy, small bowel resection, with end ileostomy and open abdomen with subsequent closure. This required a 27 day ICU stay and required step-down long term care facility. She then presented to us for complex abdominal wall reconstruction for repair of a life-limiting parastomal hernia and ongoing midline hernia pain. On exploration her bowels were densely adhered to the abdominal skin and the posterior rectus sheath had been excised. An ST coated mesh was used to perform a right sided sugarbaker repair of her parastomal hernia with the assistance of a laparoscopic absorbable tacker. On the left hemi-abdomen the mesh was also secured with a laparoscopic absorbable tacker. To reinforce the midline, the right-sided sugarbaker and left-sided abdominal wall hernia mesh were reapproximated at the midline, providing a neofascia serving as the new posterior rectus sheath. The abdomen was then able to be closed and both hernias remain successfully reinforced.





Approximation of the abdominal midline, a recreation of the posterior rectus sheath, and coverage of parastomal hernia defect. What makes this repair unique is twofold; the combination of a Sugarbaker with abdominal wall reconstruction as well as the technique of cutting the mesh in half, securing both sides with an open approach, and then suturing the mesh back together in the midline with a permanent suture.





Case Scenario 2

A 55-year-old woman with a history of pelvic exenteration for cervical cancer and radiation therapy presented with a large parastomal and midline hernia. She had two prior failed hernia repairs. On exploration, her bowels were similarly adhered to the abdominal wall, and the posterior rectus sheath was missing around the stoma due to mesh explanation. Using the modified Sugarbaker technique, a right-sided repair with ST-coated mesh was performed, carefully avoiding injury to her ileal conduit again securing the mesh with the laparoscopic absorbable tacker. The left side was also secured with mesh, and the two sides were reapproximated at the midline to create a neofascia. The procedure was successful, and both hernias were reinforced and remain intact.

Conclusions

ST mesh tacked to the anterior abdominal wall bilaterally and reapproximated at the midline with permanent suture may be a viable approach to concomitant parastomal and midline abdominal wall hernias in patients with mesh explantation histories concerning for loss of the posterior rectus sheath.

Research

Ayuso, S. & Shao, J. & Deerenberg, E. & Elhage, S. & Baimas-George, Maria & Heniford, B Todd & Augenstein, V.. (2021). Robotic Sugarbaker parastomal hernia repair: technique and outcomes. Hernia. 25. 1-7. 10.1007/s10029-020-02328-x.

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