

Introduction

- Several potential planes for mesh placement when performing a ventral hernia repair (VHR)
- Choice can affect outcomes of a subsequent abdominal operation (SAO)
- Placement can include Onlay, Inlay, and Sublay (retromuscular (RM), preperitoneal (PP), or intraperitoneal (IPOM))
- Onlay refers to mesh placed in front of the rectus abdominus muscle, and is an open procedure.
- Inlay refers to mesh placed within the edges of the fascia,
- Sublay refers to placement behind the muscle and then further specified whether the placement was inside the peritoneal cavity or was preperitoneal.
- Previous studies show that intraperitoneal mesh (IPOM) placed during a VHR leads to longer operative times in a SAO
- Other factors include increased risk of enterotomy, surgical site infection/ occurrence (SSI/SSO), and a greater extent of adhesions to mesh.
- We evaluated a large cohort of SAO after prior VHR to compare outcomes.

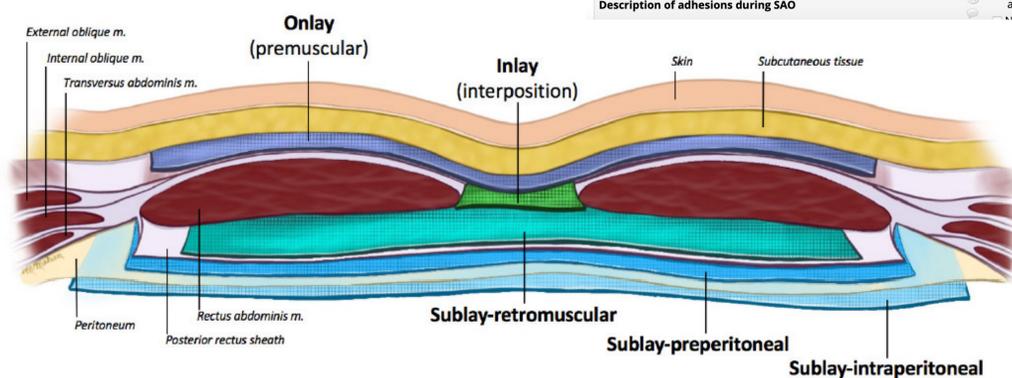


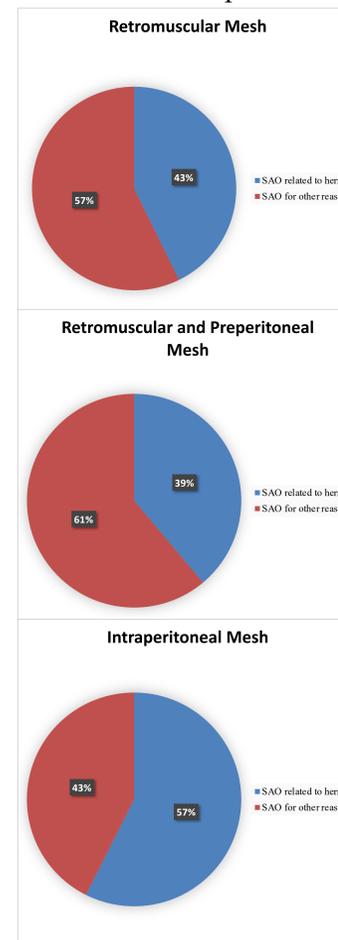
Figure 1: Alimi Y, Merle C, Sosin M, Mahan M, Bhanot P. Mesh and plane selection: a summary of options and outcomes. *Plast Aesthet Res* 2020;7:5. <http://dx.doi.org/10.20517/2347-9264.2019.39>

Methods

- Retrospective chart review: Epic: Prisma Health/ Greenville Memorial Hospital
- 3096 initial patients identified with VHR performed 2005-2020
- Identified 405 patients with an SAO after VHR
- SAO patients indication for surgery, adhesions, operative time, and complications were collected
- All information from prior VHR will be collected in patients who have undergone SAO

Results

- Preliminary Results
- RM mesh: 42.8 % of SAOs due to hernia recurrence or wound complication.
- RM rate of enterotomy 0.7 %, and a high category of difficulty score in lysis of adhesions to mesh was 2.9 %.
- In comparison to mesh placed IPOM, 57.4 % underwent SAO due to hernia recurrence or wound complication.
- IPOM enterotomy was 2.8 %, high grade lysis of adhesions occurred in 8.3 % of reoperations
- If we group RM with PP mesh, data presents even stronger that IPOM mesh affects outcomes of SAO more prevalently



Conclusion

- Upon further data review, plan to compare the whole group of mesh placement in different planes of the abdomen to the IPOM group.
- Appears to support prior literature that mesh placed in a location other than IPOM will result in better outcomes for the patient when it comes to a SAO.

	RM alone	RM/PP	IPOM
N	138	162	108
SAO related to hernia	59 (42.8%)	63 (38.8%)	62 (57.4%)
OP time (min)	149.4	145.4	152.4
Bowel Injury	1 (0.7%)	1 (0.6%)	3 (2.8%)
High grade LOA	4 (2.9%)	5 (3.1%)	9 (8.3%)
SSO/SSI	4 (2.9%)	3 (1.9%)	6 (5.6%)
Secondary Mesh Infection	0	0	1 (1.4%)

