#611 Complete Transabdominal Excision of Complex Sacrocolpopexy Mesh Erosion: An Open Approach is Safe and Effective

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Background and Aim

Abdominal sacrocolpopexy (ASC) using polypropylene synthetic mesh is an effective and durable approach for the treatment of apical pelvic organ prolapse (POP). Reported mesh erosion rates range between 0-10.5%.[1,2]

Conservative management with topical estrogen or transvaginal partial mesh excision can be successful in cases of limited mesh erosion or mild symptoms.[3] However, an abdominal approach may be required for complete mesh excision in cases of extensive mesh erosion.

Aim: We report our experience with transabdominal ASC mesh excision for complex mesh erosion.

Surgical Technique

Complete mesh removal was performed via midline lower abdominal laparotomy. Sacrocolpopexy mesh was excised in its entirety from the sacral promontory to the vaginal cuff or cervix.

Methods

A retrospective review was conducted to identify patients who underwent complete transabdominal ASC mesh excision at a community hospital in South Texas from August 2020 and February 2024. Inclusion criteria: mesh removal was performed due to symptomatic mesh erosion. ASC mesh excision was performed by a single female pelvic medicine and reconstructive urologist with assistance from a general surgeon as needed

Discussion

Transabdominal sacrocolpopexy mesh excision may be necessary in cases of large mesh erosion, persistent mesh exposure, recurrent infection, and vaginal discharge refractory to conservative management.[3]

Mesh erosion likely results from inflammation of the mesh, which can create dense adhesions and often requires complete excision to achieve symptom resolution.[4]

Complete removal of complex eroded sacrocolpopexy mesh can be safely performed using an **open abdominal approach** with a **low complication rate**.[5]

Figures

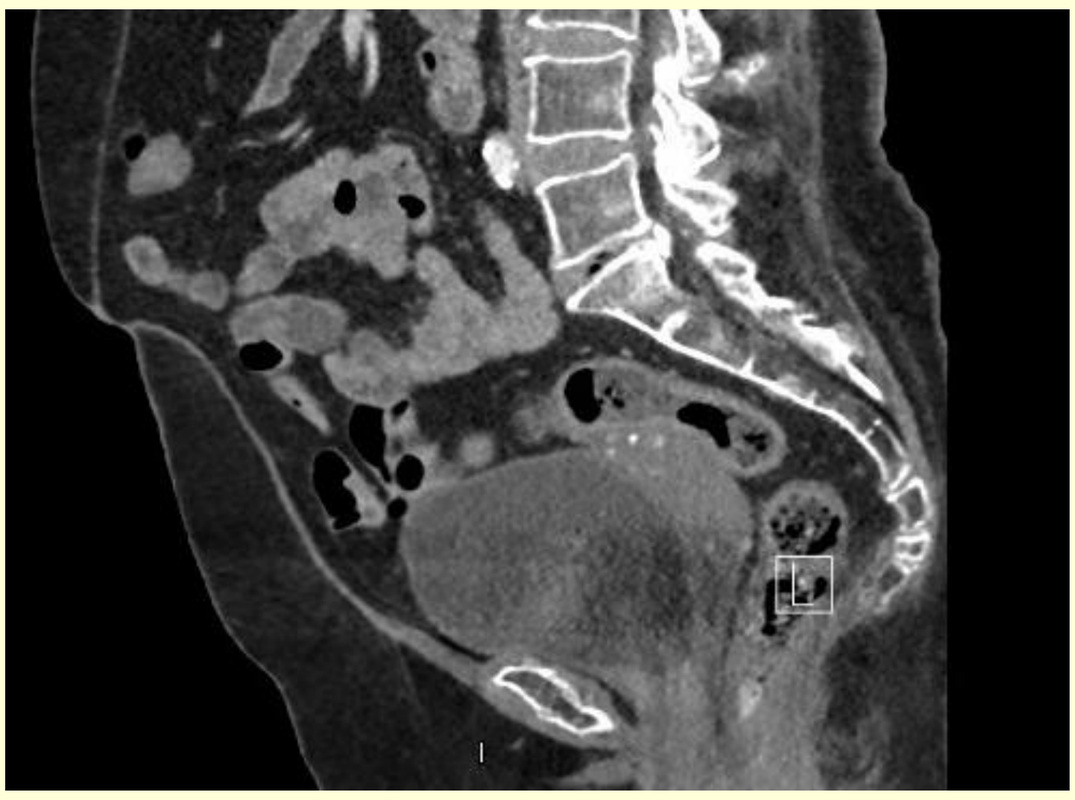

Figure 1. Sagittal CT images demonstrating calcification of the vaginal walls with adherence to the bladder and sigmoid colon.

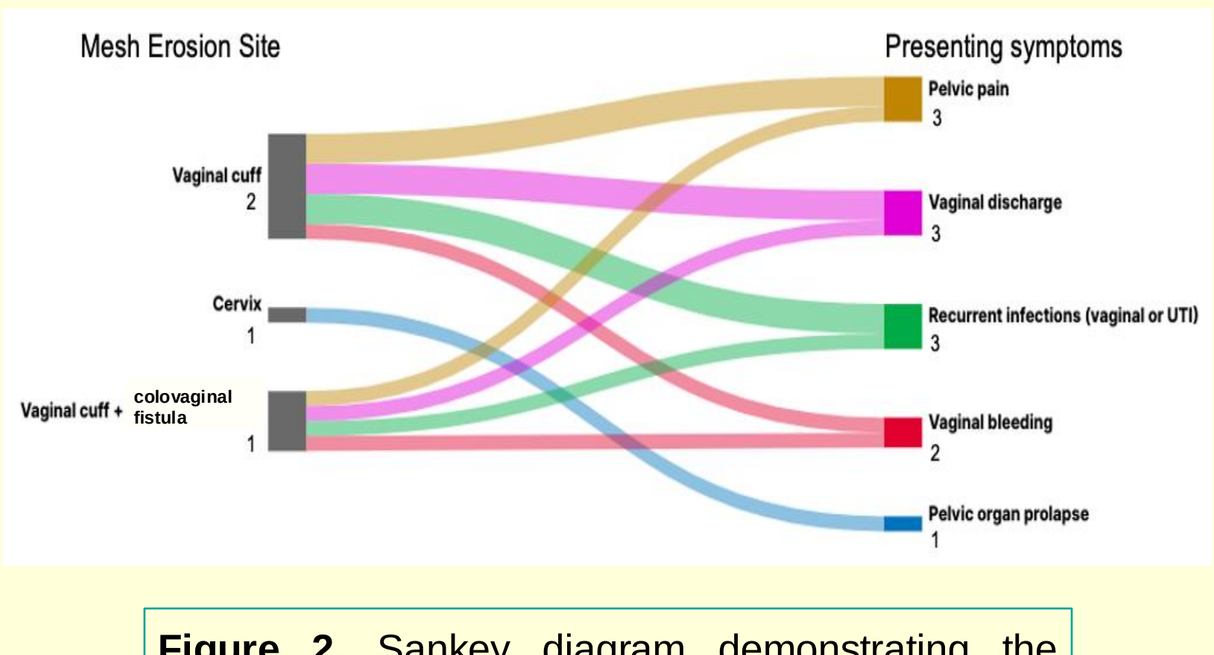

Figure 2. Sankey diagram demonstrating the mesh erosion site for each patient and their associated pre-operative symptoms.

Results

Table 1: Operative patient characteristics.

Patient characteristics	Abdominal mesh excision (N=4)
Age (years)*	62 (47-83)
Body Mass Index (kg/m^2)*	31.1 (23.4-33.9)
Ethnicity - Hispanic	4 (100%)
Time from index surgery to excision (months)*	71.5 (50-128)
Operative outcomes	
Operative time for mesh excision (minutes)*	116.5 (87-202)
Collaborative cases with general surgery	3 (75%)
Follow-up time (months)*	6 (1-15)
Length of stay (days)*	1.5 (1-3)
Complications requiring additional surgery	0 (0%)
Resolution of pre-operative symptoms	4 (100%
Recurrence of symptomatic POP	0 (0%)

Table 1: Patient characteristics including operative outcomes.
* Results listed as mean (range)

- Severe adhesions between the mesh and sigmoid colon were identified in all cases.
- Two patients (50%) underwent at least one previous vaginal excision attempt.
- No postoperative complications requiring additional surgery.
- All patients had resolution of pre-operative symptoms.

References

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