

Comparative Efficacy of Pilonidal Sinus Excision and Reconstruction Incorporating an Extracellular Matrix Graft

#ASCRS24

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Background

- Pilonidal sinus disease (PSD) remains a persistent challenge for clinicians
 - Historically, following excision we reconstructed post pilonidal excision wound with bilateral fasciocutaneous gluteal flaps and a mid-line closure with tie-over sutures and reported a dehiscence rate of 31.4% (n=11/35) [1].
- Aim: Reduce post-operative complications by incorporating the use of an ovine forestomach matrix (OFM) graft

Methods/Interventions

- Patients were prospectively enrolled
- Participants underwent
 - Elliptical excision and reconstruction with bilateral fasciocutaneous gluteal advancement flaps; however, prior to mid-line closure, an **OFM graft was placed at the base of the defect and secured**
 - Two full-thickness sutures tied over rolled-up gauze.
- Patients monitored for up to 12 months
 - assessed for postoperative complications (Dehiscence, seroma, hematoma, infection), recurrence, and scar satisfaction.
- Results of the prospective cohort were compared with a retrospective cohort previously published [1] who did not receive placement of an OFM graft.

Results

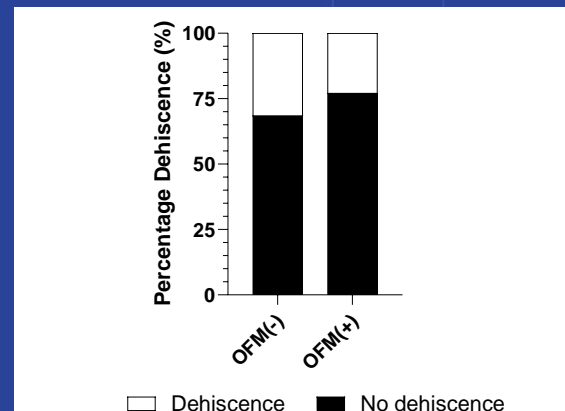
Patient demographics

	OFM(-)	OFM(+)	p
n	35	35	-
Age (years)*	27.1±7.8	28.4±7.3	0.48
BMI*	26.6±6.2	27.0±4.8	0.77
Female	9 (25.7%)	5 (14.3%)	0.23
Male	26 (74.3%)	30 (85.7%)	
Current smoker	4 (11.4%)	4 (11.4%)	0.60
Former smoker	1 (2.9%)	0 (0%)	
Diabetes	1 (2.9%)	0 (0%)	0.31

*mean ± SEM

Dehiscence

	OFM(-)	OFM(+)	p
Yes	11 (31.4%)	8 (22.8%)	0.42
No	24 (68.6%)	27 (77.1%)	



Conclusion

The current comparative study has demonstrated that integration of an OFM graft as part of flap-based closure of PSD may reduce post-operative dehiscence rates.

[1] Nasser, Y., et al., Bilateral Gluteal Fasciocutaneous Advancement Flaps With and Without Tie-Over Sutures in Treatment of Chronic Pilonidal Disease: A Prospective Case Series. Am Surg, 2023, 89(6): p. 2499-2504. ‡Ovine forestomach matrix (Myriad Matrix®, AROA Biosurgery, Auckland, NZ)