

Complex Soft Tissue Reconstruction with Ovine Graft Following Surgical Resection of Invasive Recurrent Facial Basal Cell Carcinoma: A Case Report

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INTRODUCTION

Reconstruction after extensive excision of facial malignancies is challenging, particularly in patients who are poor candidates for flap-based reconstruction. Ovine forestomach matrix (OFM) grafts have shown promise in facial soft tissue regeneration after skin cancer,¹ and facial trauma². This case report describes OFM use for volumetric fill and aesthetic repair following resection of a large, recurrent invasive basal cell carcinoma.

PATIENT HISTORY AND SURGICAL METHOD

A patient with recurrent infiltrative basal cell carcinoma of the left cheek and perineural invasion underwent wide local excision with partial parotidectomy, leaving a 6.5 × 6.5 cm defect and positive deep margins. Lacking viable flap options, the patient received a single application of morselized OFM* and layered OFM^ graft to provide coverage and soft tissue infill for staged reconstruction.

RESULTS

Despite the presence of a postoperative parotid fistula, the patient required only one surgical application of OFM grafts. He achieved enough soft tissue volume regeneration and closure of the fistula to undergo successful staged full-thickness skin graft within 6 weeks. The rapid closure allowed the patient to undergo successful radiation therapy to treat his deep positive margins. He remains tumor free with a pliable skin graft despite current radiation treatment

DISCUSSION

OFM grafts provide safe, effective soft tissue reconstruction in a high-risk, complex soft tissue reconstruction with positive margins following resection of cancerous lesion of the face. It may offer a valuable alternative to complex flap reconstruction in select oncologic patients. Ongoing prospective studies are warranted to validate these findings.

REFERENCES

^ Myriad Matrix, Aroa Biosurgery Limited, New Zealand, * Myriad Morcells, Aroa Biosurgery Limited, New Zealand. Dr. LaLama has a consultancy agreement with Aroa Biosurgery Limited. [1] Moran ME. Scleroderma and evidence based non-pharmaceutical treatment modalities for digital ulcers: a systematic review. J Wound Care. 2014 Oct;23(10):510-6.

Pre-Operative Defect



Intra-Operative, Post-Resection



Application of morselized OFM



Application of 3-layer OFM graft



Week 3 – 100% depth fill



Week 16 – Long-Term Follow-up

