

Novel Reconstruction of Oropharyngeal Oncologic Surgical Defects with PriMatrix® Dermal Repair Scaffold: A Case Report

Ann Kang¹, Timothy Phillips^{1,2}

1. School of Medicine, Queen's University, Kingston, Canada

2. Division of Otolaryngology / Head & Neck Surgery, Queen's University, Kingston, Canada



Introduction

- There are a wide range of reconstruction options for oral cavity defects, ranging from secondary intention, all the way up the reconstruction ladder to free flap reconstruction.
- A more recent addition to oral cavity reconstruction are acellular dermal matrices. Dermal matrices have been available for over 10 years and used similarly to a mucosal or skin graft.
- Benefits of such grafts include reduced OR time, shorter recovery time, and fewer donor site issues.
- A new acellular matrix has been introduced called PriMatrix®. This has been derived from fetal bovine dermis. It offers a Type III collagen-rich environment to support cellular repopulation and revascularization processes essential to wound healing.
- PriMatrix® was developed for complex burn and traumatic wound repair. The product has been approved for oral cavity reconstruction.

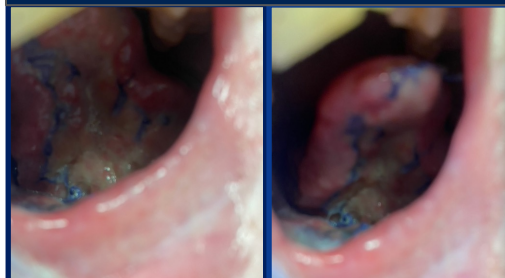
Case Report

- A 60-year-old female presented with a T1N0MO recurrent oral cavity cancer.
- She was previously treated 2.5. years prior for a large T4 lip cancer with lower lip resection, mandibulectomy, bilateral neck dissections, and fibula free flap reconstruction followed by adjuvant radiation therapy. At the time of her presentation with recurrent cancer, she had intelligible speech and was on a soft oral diet.
- A transoral resection of tumour with clear surgical margins of ~1cm resulted in a defect of ~4x3cm. Given the patients extensive previous operation, the decision was made to use PriMatrix® graft for reconstruction.
- PriMatrix® graft was sutured into place with 3-0 Vicryl sutures along the periphery of the defect and quilting stitches to bolster the graft in place.
- Patient was admitted overnight and discharged the next day, at which point she was able to eat her preoperative baseline diet.
- At both her 2-week and 3-month follow up she maintained her baseline diet and speech. By the 3-month visit the mouth had completely re-mucosalized.

Discussion

- This is one of the first reported applications of PriMatrix® in the oral cavity.
- The success of this graft in such a complex patient positions PriMatrix® as a highly promising choice for future intraoral applications.
- The benefits include its ease of use, ease of storage, and lack of donor site morbidity.
- It is a good option for small to medium size defects and has been shown in this case report to allow for good healing in a previously radiated location.

2 weeks post-op



3 months post-op



PriMatrix Graft

