

Treatment of Gingival Recession Using OrACELL[®] Decellularized Dermis

Case performed by: Arnold Sindler, DDS, Periodontist, Westminster, MD, USA

CASE STUDY

Gingival recession, a common dental condition, is often treated with a root coverage procedure.^{1,2} In the past, subepithelial connective tissue grafts (SCTG) have been used to treat gingival recession; however, these grafts require a secondary surgical site that often leads to increased patient morbidity.^{1,2,3} For this reason, acellular dermal matrix allografts have become a popular choice among surgeons to treat gingival recession.^{2,4}

One such allograft, Oracell, is decellularized human dermis that is designed for maxillofacial applications. This matrix of collagen, elastin, and retained endogenous growth factors is designed to be a scaffold for tissue regeneration and to support healing where applied.

The following case presentation involves root coverage procedures for gingival recession using Oracell.

Patient

- 38-year-old Female

Diagnosis

- Gum recession in upper left first bicuspid (#12) and other areas not needing immediate attention (Figure 1)

Treatment

- Changes to tooth brushing technique to eliminate mechanical trauma
- In preparation for use as a connective tissue graft to #12, OrACELL decellularized dermis pre-rinsed with chlorhexidine
- Local infiltration with Lidocaine and epinephrine
- Root surfaces of #12 and 13 planed aggressively, treated by burnishing with tetracycline onto the root surfaces
- Sulcular incisions made on facial of #12 and 13, extended mesially and distally on the buccal side at the base of the papillae; Partial thickness dissection carried into the vestibule for necessary extension

- OrACELL soaked, trimmed, then sutured over the facial surface of site and the buccal flap was sutured over the graft
- A periodontal dressing was used to protect graft

Outcome

- Most of sutures removed at 2 weeks; however some remained functional and were left (Figure 2)
- Excellent healing at 4 week follow-up; however, some OrACELL was protruding from free gingival region in area between #12 and #13 (Figures 3-4)
- Excellent healing at 2 & 3 months; all remaining sutures removed (Figures 5-6)

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Figure 1.
Pre-operative Root Exposure



Figure 2.
6 Week Post-operative Healing



Figure 3.
2 Month Post-operative Healing



Figure 4.
2 Month Post-operative Healing



Figure 5.
3 Month Post-operative Healing



Figure 6.
5 Month Post-operative Healing

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

References

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4. Rahmani ME, Mohammed A, Rigi Lades ME, et al. Comparative clinical evaluation of Acellular Dermal Matrix Allograft and connective tissue graft for the treatment of gingival recession. *J Contemp Dent Prac.* 2006;2:63-70.

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