

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

- 36-year-old in good health. Acceptable oral hygiene.

Diagnosis

- Gum recession and inflammation in lower left of #20, #21, and #22 (Figure 1)
- 1 mm recession with thin keratinized tissue at #20 and #22
- 4 mm recession with little keratinized tissue remaining at #21

Treatment

- Changes to tooth brushing technique to eliminate mechanical trauma
- Local infiltration with lidocaine and epinephrine; Roots of #s 20, 21, and 22 planed aggressively and then burnished with tetracycline
- Sulcular incision made at #s 20, 21, and 22 continuing beyond mucogingival junction into the buccal vestibule and undermining the papillae between #s 21 and 22

- Papillae between #20/21 and #22/23 undermined with sharp dissection and separated from underlying tissue on the facial aspect, level with adjacent CEJs with a #15-c surgical blade
- 10 mm x 5 mm piece of Oracell decellularized dermis used as connective tissue graft to #22; 15 mm x 5 mm piece of Oracell used for #20 and #21
- Oracell soaked and fed under dissected tissues buccal to #s 20 and 21 then stabilized with sling sutures; Second piece of Oracell placed over facial surface of the root of #22 and under buccal native tissue then stabilized with sling sutures (Figure 2)
- Buccal, native gingival tissues coronally positioned over Oracell and stabilized with secondary row of sling sutures
- A periodontal dressing was used to protect graft

Outcome

- Post-operative healing at 3 month follow-up, sutures removed (Figure 3)

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Figure 1.
Pre-operative Root Exposure



Figure 2.
Surgical Application of Oracell



Figure 3.
3 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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