

Case Report

Treatment of Gingival Recession Using OrACELL Decellularized Dermis: Case H.D.

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Gingival recession, a common dental condition seen by dental surgeons, 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, alternative grafts that avoid these issues have been developed. For example, acellular dermal matrix allografts have become a popular choice among surgeons to treat gingival recession.^{2,4}

One such allograft, OrACELL, is a decellularized human dermis that is typically applied in maxillofacial applications. This matrix of collagen, elastin, and growth factors is designed to be a scaffold for tissue regeneration and proper healing where applied.

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

PATIENT

- 55 year old Female; Excellent Health

DIAGNOSIS

- Gum recession in lower left and lower right bicuspid and canines (Fig 1)

TREATMENT

- Changes to tooth brushing technique to eliminate mechanical trauma
- Pre-medicated using Clindamycin, pre-rinsed with chlorhexadine, given Ibuprofen prior to procedure. Local infiltration with lidocaine and epinephrine
- Roots of teeth planed aggressively and burnished with tetracycline
- Sulcular incisions made tunneling under the facial papillae at the level of the adjacent CEJs from #s 20-23; Incisions continued as a partial thickness dissection beyond mucogingival junction into the vestibule
- OrACELL decellularized dermis used as connective tissue graft to #21 and #22
- OrACELL soaked, trimmed, then pulled into position through the space between the teeth and the overlying tissues, and then sutured against the tooth roots with continuous sling suture tied on the lingual
- Buccal flap coronally advanced and sutured over graft
- A periodontal dressing was used to protect graft

OUTCOME

- Excellent healing at 1 month follow-up, sutures removed (Figs 2-3)



Figure 1: Pre-operative Root Exposure



Figure 2: 1 Month Post-operative Healing



Figure 3: 1 Month Post-operative Healing

1. Koudale SB, Charde PA, Bhongade ML. A comparative clinical evaluation of acellular dermal matrix allograft and sub-epithelial connective tissue graft for the treatment of multiple gingival recessions. *J Indian Soc Periodontol.* 2012;16(3):411-416.
2. Ayub LG, Ramos UD, Reino DM, et al. A randomized comparative clinical study of two surgical procedures to improve root coverage with the acellular dermal matrix graft. *J Clin Periodontol.* 2012;39:871-878.
3. Wennstrom JL, Zucchelli G. Increased gingival dimensions. A significant factor for successful outcome of root coverage procedure? A 2 year prospective clinical study. *J Clin Periodontol.* 1996;23:770-7.
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.