Case Report

Treatment of Gingival Recession Using OrACELL Decellularized Dermis: Case C.K.

Arnold Sindler, DDS
Periodontist
Westminster, MD, USA

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

- 26 year old Female; Good Health (Very good oral hygiene; Healthy gingival complex)

DIAGNOSIS

- Gum recession in lower left second bicuspid (#20) (**Fig 1**)
- 3-4 mm buccal gingival recession
- Mucosal free gingival margin

TREATMENT

- Changes to tooth brushing technique to eliminate mechanical trauma
- Oral irrigator introduced
- Local infiltration with lidocaine and epinephrine; horizontal incisions in papilla tissue between #19/20 and #20/21 approx. 1 mm coronal to the buccal CEJ
- Vertical incisions at mesial of #19 and distal of #21, extended into buccal vestibule
- Buccal, partial thickness flap elevated, permitting coronal displacement of tissue
- Papilla portions of flap excised
- 10 mm x 9 mm piece of OrACELL decellularized dermis used as connective tissue graft to #20
- OrACELL soaked and placed over root surface with dermal side against root and adjacent tissues
- Sling suture used to stabilize OrACELL; Second sling suture used to coronally advance the flap; Additional sutures used to close vertical incisions
- A periodontal dressing was used to protect graft

OUTCOME

- Sutures removed at 2 weeks, excellent healing; Complete healing at 3 Month follow-up (**Fig 2**)

Figure 1: Pre-operative Root Exposure

Figure 2: 3 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.