

# Treatment of Gingival Recession Using OrACELL<sup>®</sup> Decellularized Dermis

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CASE STUDY

Gingival recession, a common dental condition, is often treated with a root coverage procedure.<sup>1,2</sup> 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.<sup>1,2,3</sup> For this reason, acellular dermal matrix allografts have become a popular choice among surgeons to treat gingival recession.<sup>2,4</sup>

One such allograft, Oracell, is decellularized human dermis that is typically used in maxillofacial applications. This matrix of collagen, elastin, and 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

- 26-year-old female in good health (Very good oral hygiene; Healthy gingival complex)

## Diagnosis

- Gum recession in lower left second bicuspid (#20) (Figure 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
- Periodontal dressing used to protect graft

## Outcome

- Sutures removed at 2 weeks, excellent healing; Complete healing at 3 month follow-up (Figure 2)

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**Figure 1.**  
Pre-operative Root Exposure



**Figure 2.**  
3 Month Post-operative Healing

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

## References

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.
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