Cosmetic periodontal surgery (Part 4A):

Barriers of success

By David L. Hoexter, DMD, FACD, FICD, Editor in Chief

Part 4A of this series on cosmetic periodontal surgery deals with various barriers that have historically been used to aid periodontal regeneration. This article is limited to the use of barriers to achieve predictable regenerative coverage of aesthetic root recession using the guided tissue regeneration (GTR) technique with resorbable barriers. It also includes a case study on the use of a polytetrafluoroethylene (ePTFE) membrane that was porous.

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periosteal elevator by Hu-Friedy, revealed the extent of the recession of both the cuspid and the bicuspid buccally. Most important is the preservation of the interproximal tissue. Keeping the interproximal gingiva is paramount for the blood supply of the interproximal tissue. This avoids loss of interproximal tissue, which would result in dark-appearing interproximal voids, referred to as “black diamonds.”

Placement of the Guidor membrane covering the recessed labial root of #11 is done next (Fig. 4). The labial recession of #12 was left without a membrane. No scaling was done nor chemicals applied to either root.

Next, the coronal repositioned flap technique was performed. This coronally repositions the gingival tissue, especially the preserved keratinized gingiva. The tissue was then sutured in the desired position. The tissue now will cover all the recession as well as the membrane (Fig. 5).

Figure 6 shows how the color of the newly attached keratinized gingiva achieved on the previous recessed root of #11 blends in with the symmetrical background tissue, giving the esthetic appearance desired while restoring health. Note also that #12, without using the barrier GTR, does not regenerate gingival coverage and returns to the original recession level.

The patient was thrilled with the results and continued to maintain his oral hygiene with our professional help. The results remained consistent for more than 11 years before the patient changed locations.

**Conclusion**

Root recession coverage using the GTR technique (with a polylactic barrier by Guidor in this case study), resulted in regeneration of the gingival coverage of the recessed root. In the same patient on an adjacent tooth, using the same technique but without the barrier utilized on the first tooth, the technique resulted in the recession returning to its original level.

It should be noted that, before doing any root coverage technique, the cause of the recession, such as toothbrush abrasion or other oral-hygiene habits (especially occlusal trauma), or any local causes that might have led to the recession, should first be addressed. In this case, with cosmetic periodontal surgery, the patient was thrilled with the results.