Fibrin glue application in conjunction with tetracycline root conditioning and coronally positioned flap procedure in the treatment of human gingival recession defects.

Authors: Trombelli L., Scabbia A., Wikesjo U.M., Calura G.

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Abstract:

A split-mouth clinical study was designed to determine the effect of fibrin glue (FG) in addition to tetracycline HCI (TTC) root conditioning and the coronally positioned flap (CPF) procedure in the treatment of maxillary buccal recession defects. 11 patients presenting with a pair of Class I or II recession defects were selected. After initial therapy, defect-specific and full-mouth oral hygiene standards and gingival condition, recession depth, recession width, probing depth, attachment level, and width of keratinized gingiva were recorded. The surgical procedure included elevation of a full split thickness flap, root debridement and root conditioning with a 10 mg/ml TTC solution for 4 minutes. According to a randomization list, in each patient, 1 defect was treated with topical FG application, while the paired defect did not receive FG. The flap was adapted and sutured coronally to the cemento-enamel junction without tension. Healing was evaluated 6 months postsurgery. Significant recession depth reduction and attachment gain were observed for both treatments. Average root coverage amounted to 65% in FG treated defects and 55% in defects treated with TTC conditioning only. There were no clinical and statistical significant differences between the treatments for any parameter considered. This study suggests that FG may not meaningfully enhance the outcome of the CPF procedure with TTC root conditioning.