Fibrin adhesive derived from snake venom in periodontal surgery. Histological analysis.

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Abstract:

Background: A new fibrin adhesive made of buffalo plasma-derived fibrinogen and a thrombin-like snake venom enzyme, has been successfully used to immobilize free gingival grafts. This case series histologically compared sutured grafts (control group) with others immobilized by using the fibrin adhesive (experimental group). Case Description: The grafts were placed in the contralateral mandibular bicuspids of 15 patients, so that each subject received one treatment of each type. Five biopsies of each group were collected at 7, 14 and 45 days of healing, which were histologically and morphometrically analyzed as regards the relative volume density of the different connective tissue components. Results: The sites in the control group presented a higher inflammatory cell density at 7 days and a tendency towards a lower collagen density. In the experimental group, the grafts had an appearance of more advanced healing. Tissue maturity characteristics progressed until 14 and 45 days, but no difference between groups could be noted at these times. Conclusions: Within the limits of the present study, it may be suggested that the alternative fibrin adhesive tested could represent an alternative to sutures in gingival grafts procedures.