

Abstract

Objectives: This randomized clinical trial aimed to compare the effects of a bovine-derived xenograft with (control group, CG) or without (test group, TG) a collagen membrane for the treatment of mandibular Class II furcations.

Method and materials: Nineteen patients presenting 32 furcations were included and randomly assigned to CG (n = 16) or TG (n = 16). At the 6-month follow-up (M6), 29 furcations were reevaluated. All clinical measurements were performed by the same investigator with a straight periodontal probe and a specially designed "modified Nabers probe" (both with 1-mm increments). The primary outcome was the improvement of the horizontal probing attachment level. According to the protocol, there was no re-entry at 6 months.

Results: Both vertical (at M6, CG: 2.4 ± 0.8 mm, TG: 2.7 ± 1.0 mm) and horizontal probing attachment levels, whether measured with a periodontal probe (at M6: CG: 3.4 ± 0.8 mm, TG: 3.2 ± 1.0 mm) or the "modified Nabers probe" (at M6: CG: 3.5 ± 1.1 mm, TG: 3.2 ± 1.0 mm), favorably evolved after 6 months. There was no significant difference for any of the measures performed ($P > .05$, unpaired t test).

Conclusions: Both treatments were clinically effective with no statistically significant difference between them but as there was no histologic analysis, the amount of real regeneration could not be analyzed. This conclusion should be confirmed by longer follow-up periods.

Keywords: bovine-derived xenograft; collagen membrane; furcation defects; periodontal disease; regenerative therapy.