Effect of soft laser in bone repair after expansion of the midpalatal suture in dogs.

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**Abstract**

**INTRODUCTION:** The purpose of this research was to study the influence of soft laser treatment on the process of bone repair after expansion of the midpalatal suture.

**METHODS:** The sample for this case-control experimental study was 11 dogs. They were randomly divided into 2 groups, both of which underwent rapid maxillary expansion with a hyrax appliance. The animals in group 1 were also treated with laser therapy. They were killed, and histologic specimens of the palatal suture were prepared. The Student t test was applied for independent data, and the Mann-Whitney test was used for nonparametric data.

**RESULTS:** A significant difference was observed in the quality of the palatal sutures between the animals in groups 1 and 2. The connective tissues of the sutures in the group 1 animals were similar to the original configurations, with more advanced osteogenesis and fibrogenesis, compared with those of group 2.

**CONCLUSIONS:** Soft laser appears to influence the behavior of the repair process, contributing to suture reorganization and palatal bone osteogenesis during and after expansion.

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