

ABSTRACT

Long-term stability of class II division 1 malocclusion treated with the Twin Block appliances.

Introduction: The aim of this study was to compare the skeletal and dentoalveolar stability produced by the Twin Block (TB) appliances through cephalometric measures. **Methods:** The treatment group sample comprised 11 patients with Class II malocclusion, previously treated with TB, evaluated at three stages: pretreatment, posttreatment, and long-term posttreatment. The control group comprised 11 subjects with normal occlusion. Lateral cephalometric films were obtained at the three stages. Were measured a customized cephalometric analysis generated 17 variables, 7 angular and 10 linear. Intragroup comparisons among the 3 stages were performed with repeated measures analysis of variance ANOVA, followed by Tukey tests. Intergroup comparisons of posttreatment changes and normal growth changes of the treatment group were performed with *T-tests* ($P < 0,05$) **Results:** Lower anterior facial height, the angle formed by the maxillary incisor's long axis and the NA line, and Overbite demonstrated significant relapses in relation to the control group. The same intragroup difference was found in the TB group. **Conclusion:** Most dentoalveolar changes obtained with the Twin Block followed by fixed appliances during treatment remained stable in the long term. However, lower anterior facial height, the angle formed by the maxillary incisor's long axis and the NA line, and Overbite, demonstrated significant relapses in relation to the control group. Therefore, periodic control should be increased in the posttreatment period to prevent relapse possibilities.

Keywords: Functional appliances; Twin Block appliances; Orthodontics