

EFFECTS OF TWIN BLOCK AND HERBST DEVICES ON PHARYNGEAL AIRWAY, HYOID BONE AND SOFT PALATE IN CLASS II MALOCCLUSION DURING THE PEAK PERIOD

Introduction: This retrospective study aimed to compare cephalometrically the effects promoted by the Twin Block (TB) and Herbst devices on the pharyngeal airway, hyoid bone and soft palate in patients with Class II mal occlusion during the peak growth period. **Material e Methods:** The sample consisted of 44 patients divided into 2 groups. The TB group comprised of 21 subjects (13 male and 8 female) with mean initial and final ages of 11.59 and 12.69 years, respectively, and the Herbst group comprised of 23 subjects (13 male and 10 female) with initial mean age of 12.69 and final mean age of 14.47. Head films were obtained in 2 stages: (T1) pre-treatment and (T2) pos orthopedic phase to compare skeletal, dental, pharyngeal airway, hyoid bone and soft palate (SP) measurements. Paired samples and independent-samples *t* tests were used for the intragroup and intergroup comparisons, respectively. **Results:** The Herbst group demonstrated significantly greater amount of labial tipping and protrusion of the mandibular incisors than the TB group. In pharyngeal area and soft palate thickness, the Herbst group presented a significantly greater increase than the TB group. **Conclusion:** The effects of Herbst device on the mandibular incisors, pharyngeal area, and soft palate were greater in relation than the effects of TB device. TB produced an improvement in oropharyngeal area and lower pharyngeal dimension.

Key words: Functional appliances; Twin Block; Herbst; Orthodontics; Pharyngeal airway.