عنوان مقاله:

Cephalometric Evaluation of Age-dependent Craniofacial Skeletal Changes in Iranian Population with Class II Malocclusion: A Cross-sectional Study

محل انتشار:

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خلاصه مقاله:

Background: Class II malocclusion is one of the most prevalent occlusion discrepancies. Knowledge of growth changes in craniofacial components can help clinicians plan orthodontic treatment, determine the proper timing to initiate the treatment, and predict the treatment outcome, especially in growth modification protocols. This study evaluates craniofacial skeleton changes in class II malocclusion subjects compared to class I malocclusion.Methods: In this cross-sectional study, cephalograms of ۸۵۸ individuals aged between ۷ and ۲۳ were investigated. The samples were divided into the class I group (ANB angle ۰–۴) and class II group (ANB angle ≥ ۴ degrees), including ۴۲۶ and ۴۳۲ cephalograms, respectively, and each group was divided into seven subgroups considering age. Cephalometric analysis was performed using OnyxCeph software, and statistical analyses of variance, mean, paired t test, and independent samples t test were performed using SPSS software.Results: The results showed no significant differences between class I and class II groups in variables related to the cranial base and vertical facial height. In class II groups, the SNA angle was significantly greater. The total mandibular height (Co-Gn), facial angle (Npog-FH), and SNB angle were significantly greater in class I compared to the class II group.Conclusion: Protrusion of the maxilla affects the formation of class II malocclusion, but an underdeveloped mandible is the main component of Class II malocclusion formation. With increasing age, especially after puberty, the mandible may become more retruded in class II patients.

کلمات کلیدی:

Malocclusion, Angle class I, Angle class II, Cephalometry, Cranial base