Relationship between craniocervical posture and skeletal class: A statistical multivariate approach for studying Class II and Class III malocclusions

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Objective: To investigate the relationships between craniocervical posture and skeletal Class in cephalometric radiographs of adult subjects. Methods: Sixty-five cephalometric radiographs were classified after Delaire, as skeletal Class II and III. The craniocervical posture was evaluated using the variables proposed by Solow (1976) and Rocabado (1983). In order to test the null hypothesis (absence of an association between craniocervical posture and skeletal Class), uni- and multivariate statistical protocols were carried out. Results: Skeletal Class II presented a more posterior rotation of the ramus in relation to the cranium and a more extended head than skeletal Class III. Additionally, significant correlations were observed in Class II individuals between the rotation of mandibular ramus and cervical lordosis, as well as between rotation of mandibular ramus and cervical lordosis. The findings of this research may help to understand the contradictory results described in clinical literature about the effect of skeletal class on craniocervical posture.