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Head posture and malocclusions.

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The present study aimed to examine whether any pattern of associations could be found between the posture of the head and neck, and the occurrence of malocclusions. The sample comprised 96 children (45 M, 51 F) aged 7-13 years, sequentially admitted for orthodontic treatment of severe malocclusions. Malocclusions were diagnosed clinically and classified into occlusal, spacing, and dentitional anomalies and their subdivisions. Craniovertical, craniocervical, and cervicohorizontal postural variables were recorded from lateral cephalometric radiographs taken with the subject standing with the head in the natural head position (mirror position). A clear pattern of associations between crowding and craniocervical posture was found. Subjects with anterior crowding, i.e. more than 2 mm lack of space in the upper or lower anterior segments of the dental arch, had craniocervical angles that were on average 3-5 degrees larger than subjects without crowding ($P < 0.05$, $P < 0.01$). The findings were in agreement with the soft tissue stretching hypothesis, according to which the sagittal development of the dentoalveolar arches is impeded by the increased dorsally-directed soft tissue pressure in subjects with extended craniocervical posture.

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