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## Longitudinal changes in the skeletal pattern of deciduous anterior crossbite

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### ABSTRACT

Some patients who have an anterior crossbite in the deciduous dentition lose the crossbite during the transitional stage to permanent anterior teeth without orthodontic and/or orthopedic treatment. We observed 220 anterior crossbite patients at regular intervals and identified three groups of patients: in group N (n=16) the crossbite corrected when the central incisors erupted; in group R<sub>1</sub> (n=16) the crossbite was within  $\frac{52,51}{83,82,81} | \frac{61,62}{71,72,73}$  and remained unchanged following the eruption of the permanent central incisors; in group R<sub>2</sub> (n=12) the crossbite extended over  $\frac{52,51}{83,82,81} | \frac{61,62}{71,72,73}$  and remained following the eruption of the permanent central incisors. The purpose of this study was to determine whether any differences existed among the above three groups at the initial examination, or if differences arose during eruption of the teeth. The findings indicate that the mandibular position in group N was more posterior than in groups R<sub>1</sub> and R<sub>2</sub>, and the lengths of Pog'-Go and Gn-Cd in group N were smaller. Tooth axis of the lower incisors in groups R<sub>1</sub> and R<sub>2</sub> showed lingual tipping, and the maxilla in group R<sub>2</sub> was underdeveloped. The findings of the longitudinal changes indicated that the maxillary length in group N increased and mandibular forward growth was suppressed. The initial maxillary position in groups R<sub>1</sub> and R<sub>2</sub> remained much the same until the permanent central incisors erupted.

**KEY WORDS:** Deciduous anterior crossbite, Longitudinal study, Cephalometry.

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