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[\[PDF \(483K\)\]](#) [\[References\]](#)**Morphological Study on Quadruplets by Cephalometric and Model Analyses**[Tamami Shino](#)<sup>1)</sup>, [Kaoruko Kawabata](#)<sup>1)</sup>, [Kunihiko Nojima](#)<sup>2)</sup>, [Yasushi Nishii](#)<sup>2)</sup>, [Kenji Sueishi](#)<sup>1)</sup> and [Hideharu Yamaguchi](#)<sup>2)</sup>1) *Department of Clinical Oral Health Science, Tokyo Dental College*2) *Department of Orthodontics, Tokyo Dental College*

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**Abstract:** Clarifying the genetic factors involved in maxillofacial growth and development is very important in orthodontic treatment planning and prognosis. However, few dental studies have examined multiple births. The present orthodontic evaluation was conducted using orthodontic data from a set of quadruplets. Orthodontic evaluation was performed on a set of quadruplets (1 girl and 3 boys) aged 9 years and 7 months at the initial visit. Although all 4 children weighed only about 1,400 g each at birth, height and body weight subsequently normalized. Mean skeletal age of the quadruplets was 10 years and 2 months, about 6 months ahead of their calendar age. In all 4 children, facial profile was mostly symmetrical and convex. Intraoral findings showed a Hellman's dental age of IIIA, together with spacing of the upper anterior teeth. Both overbite and overjet were 5-7 mm, and mesial step of the terminal plane was noted. Model analysis showed that tooth materials were on the large side, while arch width was narrow. Cephalometric analysis revealed that the ANB of the first- and fourth-born children was 6°, and skeletal maxillary protrusion due to mandibular retrusion was diagnosed. The second- and thirdborn children exhibited no marked skeletal abnormalities.

**Key words:** [Multiple fetuses](#), [Quadruplets](#), [Orthodontic treatment](#), [Cephalometric analysis](#), [Model analysis](#)

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