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Craniofacial pattern of parents of children having cleft lip and/or cleft palate anomaly

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ABSTRACT

The craniofacial patterns of 38 sets of parents who had children with cleft lip and/or cleft palate anomalies (experimental group) were compared with the 24 sets of parents of healthy (noncleft) children (control group). Using a computerized program, 248 cephalograms (124 lateral and 124 frontal) were digitized and analyzed. The parents in the experimental group exhibited a distinct craniofacial morphology, including a significant decrease in upper anterior facial height (N-Ans) and total anterior face height (V-Gn). Anterior nasal spine (Ans) and maxillary alveolar process (A) were positioned more anteriorly and superiorly in the experimental group, which contributed to a significant increase in the length of the palate (Ans-Pns) and an anterosuperior rotation of the palatal plane. The cranial base angle in the experimental group was significantly obtuse and the articular angle was smaller than that of the controls. The counterclockwise rotation of the mandible was mitigated by a significant increase in the gonia1 angle. Parents in the experimental group also tended to have faces which were smaller in both transverse and vertical dimensions.

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KEY WORDS: Cleft, Parents, Craniofacial morphology, Cephalogram, Face height, Cranial base angle.