

Cephalometric analysis of Malay children with and without unilateral cleft lip and palate.

Type: Article

Abstract:

To investigate the craniofacial morphology of Malay children with repaired UCLP and compare the data with non-cleft Malay children. Twenty Malay children with repaired UCLP (12 boys, 8 girls; Mean age: 10.5 years) and 20 normal Malay children (8 boys, 12 girls; Mean age: 9.72 years) were recruited from the Combined Cleft Lip and Palate Clinic and the Department of Children's Dentistry and Orthodontics, Faculty of Dentistry, University of Malaya, Malaysia. Lateral cephalometric radiographs were taken with the head orientated parallel to the floor. Thirty-one linear and angular variables were measured on the lateral cephalometric radiographs with Dolphin Imaging Software Version 10.0 (Dolphin Imaging, Chatsworth, CA, USA). The data were analysed with the Mann-Whitney U test and the level of significance was set at $p < 0.05$. In the UCLP group, the girls had deeper overbites than the boys ($p = 0.011$), and in the Control group the girls had a significantly more acute cranial base angle (NSBa, $p = 0.017$) and a less protrusive lower lip (LL-E line, $p = 0.21$). The data for the boys and girls were combined. Subjects in the UCLP group had a more acute cranial base angle, shorter and more retruded maxillae and were more skeletal III than the subjects in the Control group. In the UCLP group, the upper and lower incisors were less proclined than in the Control group, the interincisal angle was more obtuse and the overjet reduced by 6 mm. There were no significant facial height differences. The nasolabial angle (Col-Sn-UL) was significantly more obtuse and the upper lip relative to the E line more retrusive in the UCLP group. There was no significant difference between the groups in facial heights or the maxillo-mandibular planes angle. Malay children with repaired UCLP have small, retrusive maxillae. The mandible in this group of children was of normal size and position, relative to the cranial base. Pressure from the repaired upper lip may be responsible for the retruded maxillae, retroclined incisors and obtuse nasolabial angle.

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