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Face mask therapy of preadolescents with unilateral cleft lip and palate

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ABSTRACT

This study evaluates 21 children treated with maxillary expansion and protraction appliances for skeletal discrepancies associated with unilateral cleft lip and palate (UCLP). The subjects were treated by the same orthodontist, using the same techniques and appliances. Mean pre- and posttreatment ages were 7.3 and 8.7 years, respectively. Each child was matched by ethnicity, sex, age, and the SN/MP angle to an untreated (non UCLP) control. Stable cranial and cranial base reference structures were used for superimposing serial cephalograms. The results showed definite protraction of the maxilla for the UCLP group. The posterior maxilla of the UCLP group underwent anterior displacement; the posterior maxilla of the control group displayed posterior growth changes. The maxillary incisor tips of the UCLP group demonstrated greater anterior movement than expected for untreated controls. Vertical changes of the maxilla showed no significant group differences. The mandible of the UCLP group was rotated inferiorly and posteriorly; the control group showed inferior/anterior changes. The lower incisor of the UCLP and control groups remained stable and moved anteriorly, respectively. The UCLP group showed significantly greater inferior movements of the anterior mandible than the control group. We conclude that differences between the control and UCLP groups are primarily related to mandibular clockwise rotation and secondarily to anterior maxillary repositioning.

KEY WORDS: Unilateral cleft lip and palate, Dentofacial orthopedics, Cephalometrics, Interceptive orthodontic treatment.

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