GROWTH ANALYSIS OF PALATAL SHELVES BETWEEN PRE-CEHILOPLASTY AND PRE-PALATOPLASTY STAGES

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INTRODUCTION: The treatment of cleft lip and palate patient must be efficient with minimal damage to facial growth and satisfactory speech result, achieving the psychosocial rehabilitation of the patient. However, the cleft causes distinct levels of change on maxillary growth pattern either by the effect of the defect itself or the rehabilitative process. Generally, study casts, photographs and tridimensional images have been used to evaluate the growth. 3D scanner devices for digitizing study models allow the obtainment of the measurement of the deepness and inclination of palatal shelves and facilitate the study logistic with the reliability of the results. OBJECTIVE: The aim of this study was to evaluate the size of palatal shelves at two distinct stages: prior to cheiloplasty (stage 1) and prior to palatoplasty (stage 2) in complete unilateral cleft lip and palate patients. METHODS: Dental casts from 267 patients with unilateral cleft lip and palate. The palatal shelves were measured at two stages through the scanned images of the casts, by using Adobe Photoshop CS2 software. The measurements of palatal shelves were compared between stage 1 and stage 2. RESULTS: There were an increase of size of palatal shelves in 159 patients (59.5%), a decrease of size of palatal shelves in 102 patients (38.2%), and in 6 patients (2.2%) there were no changes of the sizes. In average, the size of increase of palatal shelves was 0.21 cm; the decrease was 0.15 cm. CONCLUSION: Considering the small numeric difference, the results suggested that there were no clinical differences in the size of palatal shelves between stage 1 (prior to cheiloplasty) and 2 (prior to palatoplasty).

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