

Canine eruption pathway after alveolar grafting with different materials in patients with complete unilateral cleft lip and palate

#### ABSTRACT

The aim of this study was to evaluate the outcome of cleft-permanent canine (CPC) impaction in individuals with complete unilateral cleft lip and palate (CUCLP) submitted to secondary alveolar grafting (SAG) with different materials. Study Design: Retrospective longitudinal study analyzed 120 individuals undergoing AG with iliac crest, rhBMP-2 and mandibular symphysis. The individuals were selected at a single center and divided equally into three groups. Panoramic radiographs were analyzed by Dolphin Imaging 11.95 to measure CPC angulation and distance from occlusal plane of the CPC at two different timepoints. Interphase and intergroup comparisons were performed using analysis of variance ( $p < 0,05$ ). Results: No statistical significance was found between grafting materials ( $P = 0.416$ ). At T1, the distance from occlusal plane was greater for rhBMP-2 and mandibular symphysis. Lateral incisor was not related to success or failure of CPC eruption ( $P = 0.870$ ). Surgeon shown statistical significance for CPC eruption ( $P = 0.045$ ). Conclusion: CPC eruption was similar for materials studied. Surgeon influenced the CPC eruption that did not depend on the lateral incisor in cleft side to erupt spontaneously.

Keywords: cleft lip; cleft palate; bone transplantation.