

Correlation of the Thickness of the Regenerate and X-ray Classifications in Patients with Congenital Alveolar Cleft after Alveoloplasty

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Abstract

Among congenital anomalies, cleft lip, alveolar process and palate are most common. Alveoloplasty is an osteoplastic operation necessary in the treatment and rehabilitation of patients with congenital cleft of the upper lip, palate and alveolar process. Objective: to determine the correlation between the thickness of the regenerate obtained after alveoloplasty and the classification categories of Bergland and Chelsea. Study design. We evaluated cone-beam tomograms of 75 patients who underwent alveoloplasty of congenital clefts of the alveolar process. The degree of consolidation of the transplant was assessed on the Chelsea and Bergland scales. Correlations between the thickness of the regenerate and the categories on the Bergland and Chelsea scales was evaluated using multiple linear regression. Results the Pearson's coefficient for the Chelsea scale was $R = 0,409$ ($p < 0,0001$), for the Bergland scale, $R = 0,423$ ($p < 0,0001$). The coefficient of determination for the Chelsea scale was $R^2 = 0,167$ ($p < 0,0001$), for the Bergland scale, $R^2 = 0,179$ ($p < 0,0001$). The coefficients correspond to weak correlation and weak prognostic ability between the thickness of the obtained regenerate and the categories on the Chelsea and Bergland scales.

Key words: Congenital Cleft Alveolus, Cone-Beam Computed Tomography, Alveoloplastika, Implantation.

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