OBJECTIVE: Apical periodontitis is an inflammatory process in the periapical region, resulting from microbial contamination from necrotic pulp or inadequately root canal treatment, often asymptomatic, these lesions constitute a major risk to health. The aim of this study was to compare the effectiveness of Cone-Beam computed tomography and periapical radiography as a follow-up method of apical periodontitis after endodontic treatment in cleft lip and palate patients. METHODS: We evaluated computed tomography scans and periapical radiographs of 1,462 at the Hospital of Rehabilitation of Craniofacial Anomalies of the University of Sao Paulo patients, who attended the endodontic treatment of apical periodontitis and returned to the follow-up, being selected 46 single-rooted teeth. The tests were divided into radiographic evaluation (Group I) and tomographic evaluation (Group II). The images were analyzed by the Periapical Index (PAI) for periapical changes as follows: 1) normal periapical structure, 2) small changes in bone structure, 3) changes in bone structure with some mineral loss; 4) apical periodontitis with well-defined radiolucent area; 5) severe apical periodontitis with exacerbating features. Data were statistically analyzed using the Wilcoxon test (p <0.05). RESULTS: In Group I assessment: score 1 = 59%, score 2 = 22%, score 3 = 15%, score 4 = 2% and 5 score = 2%. In Group II: score 1 = 15%, score 2 = 17%, score 3 = 39%, 4 = 22% score and score 5 = 7%. It could be found statistically significant difference between groups. CONCLUSION: The Cone-Beam computer tomography is more effective in follow-up of apical periodontitis than periapical radiographs after the endodontic treatment in cleft lip and palate patients.

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