ABSTRACT

Benign fibro-osseous lesions: management, a study of aspects radiographic and tomographic findings and Diagnostic agreement in imaging exams

Benign fibro-osseous lesions (BFOL) affect the gnathic bones and cause the replacement of healthy bone tissue by fibrous tissue. The study includes fibrous dysplasia (FD), florid, focal, and periapical cemento-osseous dysplasia (COD), cemento-ossifying fibroma (COF), and psammomatoid ossifying fibroma (POF) and proposed to describe the clinical and radiographic aspects of diagnosed BFOL at the Stomatology Service of the FOB-USP and to evaluate the level of correct diagnosis of dental professionals in the evaluation in imaging exams (panoramic radiography, PR and cone-beam computed tomography, CBCT). Cases of BFOLs were selected in the period between 1980 and 2018 that had information to confirm the diagnosis (anatomopathological examination for FD, COF and POF, and clinical data and imaging exams for COD). Summarization of demographic and clinical data was performed. The analysis in PR and CBCT was performed by 2 evaluators independently. We presented imaging exams of BFOL (FD, florid and focal COD, and COF) and their main differential diagnosis to 10 general practitioners, 10 radiologists, 10 endodontists and 10 orthodontists, individually. There was a meeting for evaluation in PR and a second meeting, after at least two days, for evaluation in CBCT. With each exam shown, the evaluator formulated a diagnostic hypothesis. Statistical analyzes sought to assess the level of correctness diagnosis of BFOLs between dental specialties and for both examination modalities. Eighty-five LFOBs were diagnosed within the defined period and met the inclusion criteria. COD was the most frequent (n=46; 54.1%), followed by FD (n=21; 24.7%), COF (n=15; 17.6%), and POF (n=3; 3 .6%), respectively. There was a predilection for women (n=62; 72.9%; $p<0.001$) and self-declared white people (n=50; 68.9%). The mean age was 36.0 ± 16.3 years ($p<0.001$). Symptoms such as pain and swelling were reported in just over 40% of cases, mainly in FD, COF, and COD florida. We evaluated 85 cases in PR and 22 in CBCT. In PR, there was a predominance of well-defined periphery, diffuse borders, irregular shape, and mixed internal aspects ($p<0.001$). Effects on adjacent structures varied statistically significantly between lesions. The CBCT evaluation showed a predominance of non-corticalized borders and root resorption in one case of PeCOD, which had not been observed in PR. Florid and focal COD ($p=<0.001$) were the most recognized lesions in the evaluation, regardless of the dental specialty. Radiologists, followed by general practitioners, were correct in the highest number of correct diagnoses ($p=<0.001$). There was