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Case Report

Florid Cemento-Osseous Dysplasia and the Presence of a Simple Bone Cyst

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Summary

Florida Cement-bone dysplasia (DCOF) is a benign lesion, derived from fibro-bone-type diseases, it is part of cement-bone dysplasias (focal, periapical and florid), which occurs more frequently in people of race black, however cases have been reported in Asians or Caucasians, likewise the majority of cases have been reported in women. The possibility of being chromosomally linked had been studied, however, not enough literature and tests have been found to determine this. Florida Cement-bone dysplasia (DCOF) is characterized by its idiopathic origin, with no symptoms, clinically it does not usually give suggestive data of the disease, so the diagnosis is usually as a finding, in some cases it has been reported as part of The clinical loss of height or dimensions of the alveolar ridge, but it should be mentioned that it does not occur in all patients. Regarding its histopathology, the presence of connective tissue replacement instead of bone is mentioned, the management can be conservative or surgical depending on the case, it does not usually present an association with other injuries, hence the impotence of the case presented in This work describes the case of a patient of the 7th decade of life with DCOF and the presence of a simple bone cyst; conservatively managed without complications. Highlighting the importance of clinical-radiographic correlation and definitive histopathological diagnosis in order to assign the most appropriate management to each case.

Introduction

Idiopathic intra-osseous fibro-osseous lesions (among these are fibrous dysplasia, ossifying cement-ossifying fibroma, gigantiform cementoma, cement-osseous dysplasias in any of its three modalities: periapical, focal or florid, the latter are differentiated by the location and extent they present); They have been classified as benign lesions, whose main histological characteristic is: the change or replacement of normal bone by tissue composed of collagen and fibroblasts, with the presence of a mineral substance, either bone or cement, including both. [1-3]. In 1976, multifocal or florid cement-bone dysplasia was described for the first time by Melrose et al. Asian or Caucasian origin, the age at which it appears is approximately 30 years, however a range up to 50 years of age refers [4]. The location can be in the mandible or maxilla, it is asymptomatic, idiopathic and generally bilateral, although the involvement of all the quadrants is not frequent, the case may exist and also cause bone expansion, it is referred in the literature that the teeth maintain their vitality. The diagnosis of Florida Cement-Bone Dysplasia (DCOF) is generally as a radiographic finding as part of the initial study, as part of a dental visit [5]. However, the clinical and imaging correlation and the definitive diagnosis by histopathology are important. Among the radiographic characteristics presented by Florida Cement-Ossifying dysplasia (DCOF), they are described as dense sclerotic radio-opaque masses, with some mixed areas (radiolucent / radio-opaque), ranging from one quadrant to the four intraoral quadrants, they are well delimited surrounded by a radiolucent halo [6]. It is rare that clinical features appear in the DCOF, however they can occur secondary to some infectious process, periapical pathology, pulp or periodontal infections [7,8]. When this occurs, fistula with drainage of exudate, ulcer in the mucosa may appear. Occasionally, sclerotic calcified areas or masses may be present that can be exposed; this results from progressive alveolar atrophy mainly when the patient wears dentures or after dental extractions have been performed in the area involved [9]. Histologically, florid cement-bone dysplasia is characterized by presenting fibrous cellular tissue, lamellar bone, masses of material similar to cement, the presence of a capsule is not observed, and trabeculae or irregular masses of calcified tissue are observed. they will find inflammatory cells and / or fibrosis [10]. Treatment has focused mainly on prevention, in case of bone exposure or intraoral avascular bone tissue has been associated with the subsequent development of osteomyelitis. Surgical management includes dental extractions, constant biopsy, dental implants, if possible avoid them. If surgery is required, wide and complete resections or surgical excisions will be performed, mainly when large expansive masses are present, which interfere with the functionality (chewing, speaking, swallowing, deformation, and are rarely performed aesthetically), since if they are not completely eliminated and may recur or persist. And the emphasis is always to assess risk-benefit, considering the possibility of complications or sequelae such as infection due to the presence of susceptible avascular bone [11].

Case Report

The case of a 61-year-old patient is presented, who comes to the review for presenting minimal volume increase at the level of the mandibular body on the right side, asymptomatic (Figure 1). Denies significant pathological history; on physical examination, discrete facial asymmetry is found at the expense of a small increase in volume in the right mandibular body at the level of the ipsilateral premolars and molars, adequate mouth opening of approximately 4cm, intraorally with mucosa of adequate color and wetting, incomplete secondary dentition, old dental restorations (fixed partial dental prosthesis), no dental mobility, class II Kennedy modification I in the maxilla and class I mandibular modification; A slight increase in volume is observed (cortical expansion) in the left maxillary and bilateral mandibular molar region, predominantly right, there are no data on fistula, nor ulcer of bone or other exposure, the rest of the structures are unaltered (Figure 2a & 2b). An orthopantomography is performed in which multiple mixed areas with radiopaque areas of predominantly bilateral mandibular are observed, with a radiopaque halo that delimits them. (Figure 3, red arrows); and a radio-lucid lesion in the edentulous region corresponding to the mandibular molar area on the right side of approximately 1.5cm in diameter, well defined with a discrete internal mixed image, is found as a radiographic finding. (Figure 3, yellow arrow); An incisional biopsy of both lesions was performed under

local anesthesia, reporting a simple bone cyst in Figure 3 marked with a yellow arrow and the lesions marked with red arrows in Figure 3, described in the histopathological study as islands of bone laminar with the presence of reverse lines and gaps with osteocyte content, surrounding the bone islands, osteoblastic cells are identified. These islands are supported by a dense fibroconnective tissue stroma, in which there is a proliferation of collagen fibers, little inflammatory infiltrate and areas of intralesional hemorrhage; diagnosing it as Fibro-osseous Disease (Florida Cement Dysplasia). Finally, since she had no symptoms, no infectious process, no complications or injuries, the diagnosis was discussed with the patient, and it was decided to keep observation with strict oral hygiene and dental, restorative and conservative management.

Figure 1: Clinical photograph showing a slight increase in volume in the left mandibular molar region.

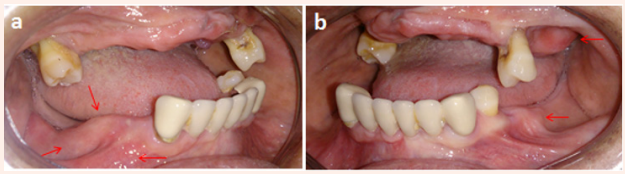

Figure 2: Intraoral photographs with a slight increase in volume in the mandible (a. red arrows) and the maxilla (b. Red arrow).

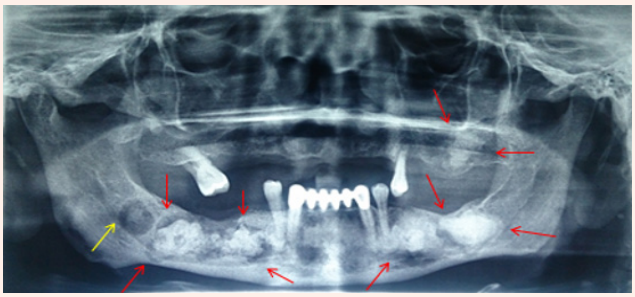

Figure 3: Maxillary and mandibular florid osteocemental dysplasia (red arrows) and the presence of a simple bone cyst (yellow arrow).

Discussion

The case presented is in a female patient, coinciding with what is reported to be more frequent in women; age differs since according to Gündüz [12] and Bansa [13], among other authors, they mention that Florida Cement-bone dysplasia (DCOF) is more frequent between the 4th and 5th decade of life [4], the reports of registered cases (like that of Grewal [3], Beylouni [9], Gündüz [12], among others) the disease is presented in a solitary way, the importance of this article is that two lesions are presented in the jaw, both lesions are presented gave conservative management, the only intervention was to take a biopsy using local anesthesia as minor surgery, without the need to submit the patient to the operating room, which implies reducing anesthetic risks as well as preserving structures. Like many authors, the case presented was also diagnosed by radiographic finding, since the patient had minimal increase in mandibular size, however, the clinical characteristics were not compatible with any disease, and since she did not present any symptoms, she was not associated with any another pathological process.

Conclusion

Florida Cement-bone dysplasia (DCOF) is a benign fibro-bone lesion, with a predilection for the female gender and usually occurs at mature ages (around 40-50 years approximately), they are not usually associated with other lesions, its diagnostic importance lies in the differentiation with other fibro-osseous type injuries as well as in the determination of the management and treatment that will be offered to the patient. It is always necessary to have enough imaging studies to be able to have an accurate diagnosis as part of the management and treatment protocol for these and all pathologies in the maxillofacial region, it occurs in the maxilla and mandible, although there are more cases reported in the mandible, usually affects more than two quadrants or occurs in relation to all intraoral quadrants, when there is cortical expansion it is important to assess the involvement and function impairment, since management will depend on it, it should also be noted that Invasive bone treatments should be avoided, if possible, such as dental implant placement, extractions; Since there is an alteration in the bone due to the replacement of the fibro-osseous tissue instead of mature bone, it can cause severe complications such as osteomyelitis and/or some other important alteration at the bone level, it is very rare for two lesions to appear of the same or different nature in the same bone (maxilla, mandible, or other) in the same patient, as is the case in this article where the case of a patient diagnosed with Florida Cement-bone dysplasia (DCOF) and simple mandibular bone cyst. Patients with Florida Cement-Bone Dysplasia (DCOF) do not usually require surgical management, only clinical and radiographic control, however cases with the presence of adnexal lesions such as the presence of damage at the level of the marginal mucosa or in the alveolar process or odontogenic or periodontal infections, ulcers, or others. It is suggested to exaggerate hygiene measures as well as to consider the risk benefit for the patient.

Conflict of Interest

Neither the authors nor any member has a financial or interest relationship (currently or in the last 12 months) with any entity producing, marketing, reselling or distributing health care products or services consumed by, or used in, the patients.

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