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Case Report

Florid Cemento-Osseous Dysplasia: A Case Report

[1]Prabhjit Singh, [2]Simranpreet Kaur, [3]Maneshwar Singh Riar

[1]MDS, Department of Prosthodontics, DIRDS, Faridkot, Punjab, India;
[2]BDS, Private Practice, Batth Dental Clinic, Tanda, Hoshiarpur, Punjab, India;
[3]BDS, Private Practice, Galaxy Dental Clinic, Jalandhar, Punjab, India

ABSTRACT:
Florid cemento osseous dysplasia is one of the rear forms of "fibro-osseous lesions" arising in the tooth bearing or edentulous areas of the jaws affecting multiple quadrants. It is characterised by replacement of the normal bone with abnormal bone showing poorly cellularised cementum like material and also some traces of cellular fibrous connective tissues. It was previously known by multiple names such as gigantiform cementoma, multiple cement- ossifying fibroma , sclerosing osteitis, multiple exostosis and sclerotic cements masses of jaws. It is usually asymptomatic and is mostly diagnosed on radiographic examination during a routine dental checkup.

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Corresponding Author: Prabhjit Singh, MDS, Department of Prosthodontics, DIRDS, Faridkot, Punjab, India

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CASE REPORT

A 27 years old patient reported with a chief complaint of 'hard swelling in the lower left back region of the jaw' which had been present from 3 years (Fig 1, Fig 2 , Fig3). The patient's family and medical history was non-contributory. He stated that the swelling had slowly increased in size till it attained the present size and was not associated with any pain or sensitivity or discharge. Patient do reported of occasional tingling sensation on left side of the face. He did not give any history of drug intake , allergy to any drug or food stuffs. Extra-oral examination revealed slight asymmetry on the lower left side of the face with a unilateral, solitary well-defined oval shaped swelling of approximately 2.5 x 3 cms in size in region of body of mandible. The swelling was bony hard in consistency, non-tender, non- reducible , non-fluctuant, non-compressible and fixed to underlying structures. Inta-oral examination showed a solitary, unilateral, ovoid swelling in the left buccal vestibule extending from distal of 34 to distal of 37 . It measured about 3 x 3.5 cm extending superoinferiorly from attached gingival margin to the depth of the buccal vestibule. The swelling was smooth surfaced and the overlying mucosa was reddish pink in colour having normal surrounding mucosa and distinct margins with no visible discharge or pulsation.

INVESTIGATIONS

Vitality tests i.r.t mandibular left quadrant revealed that all the teeth were vital in nature. Intra-oral periodicalradiographsandOPGrevealedill-definemixedradiolucent-radioopaque lesion in periapical region of 34,35,36 and 37 (Fig 4, Fig 8). The radiopacity within the lesion was homogenous surrounded by a radiolucent halo. The size of the lesion was approximately 3.5 x 2 cms having ill-defined borders except over the posterior part of apical region of 36,37 [Fig 5(a)]. It also showed a small oval shaped radiopacity of 0.5 x 0.5 cms in size on opposite side apical to 46 with well-defined borders but without radiolucent halo [Fig 5(b)]. Computed tomography revealed a mixed nature of the lesion and seemed to be of medullary origin with expansion of the buccal cortical plate in left Mandibular posterior region (Fig 9). An excision biopsy was performed that showed mild perforation of buccal cortical plate. The texture and features of the specimen was mustiple gritty fragments . The Mesenchymal stroma was composed of irregular bony trabeculae, spindal shaped fibreblasts, collagen fibres and few giant cells. the curvilinear pattern of bone

showed ginger root pattern and osteoblastic rimming (Fig 10). Fibrotic stroma composed of acellular and disorganised cemento-osseous material. Occasional cementum like ossifications were also present.

DIFFERENTIAL DIAGNOSIS

These can be the differential diagnosis in this case: ossifying fibroma, cemento-osseous dysplasia, cemento-ossifying fibroma, periapical cemented dysplasia , ameloblastoma.

FINAL DIAGNOSIS

On the basis of medical history, clinical and histopathological findings the following diagnosis was made: **Florid cemento osseous dysplasia** i.r.t mandibular left body region, Condensing osteitis w.r.t 46.

TREATMENT PLAN

The treatment plan included complete excision of the lesion with extraction of 34,35,36 . Complete oral prophylaxisandrestorationw.r.t46.

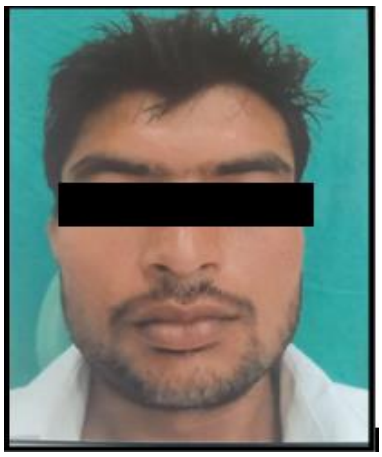

Fig 1 : Extraoral Front Profile

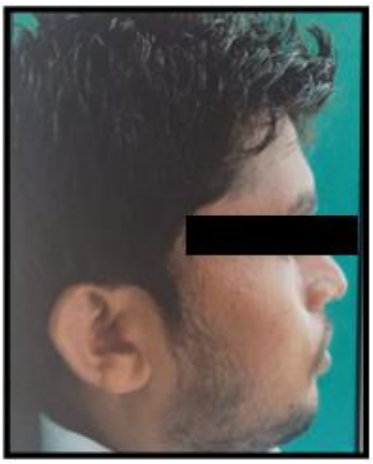

Fig: 2 Extraoral right lateral profile

Fig:3 Extraoral left lateral profile

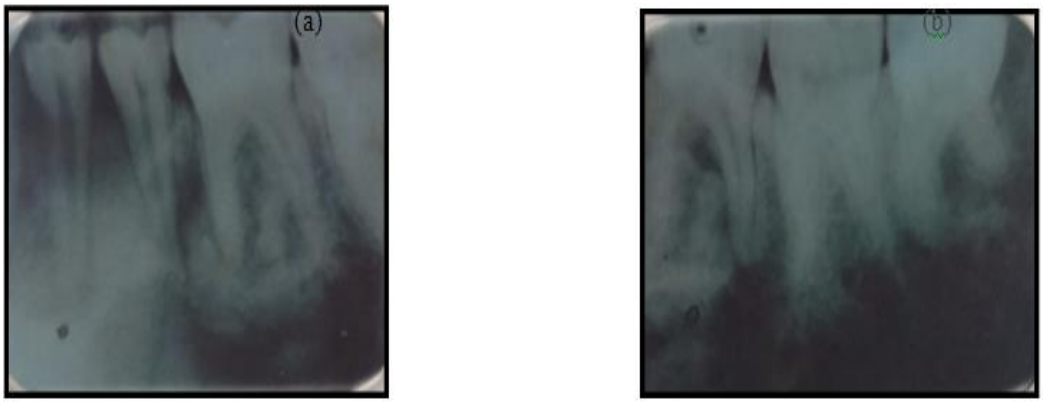

Fig: 4 Intraoral periapical radiographs wrt mandibular left posterior region [(a) 34,35,36,37 region and (b) 36,37,38 region]

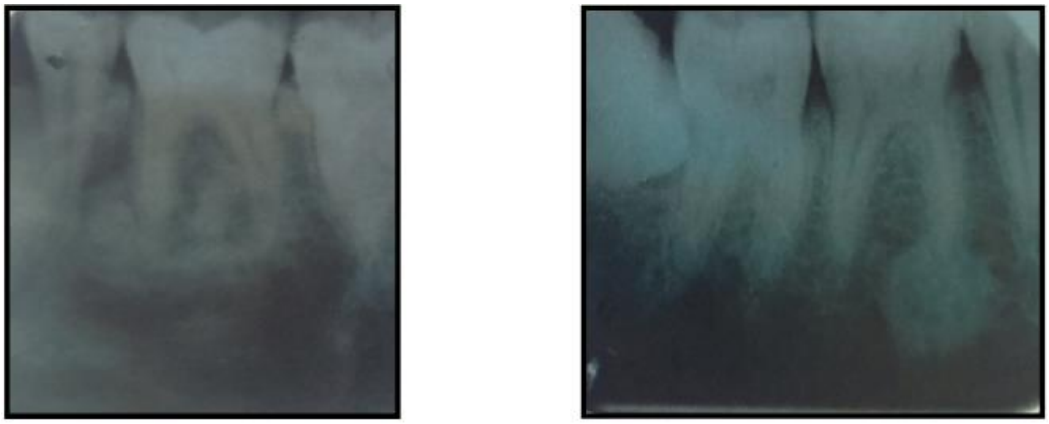

Fig 5: Intra oral periapical radiographs :- (a) 35,36,37 region (b) 45,46,47,48 region

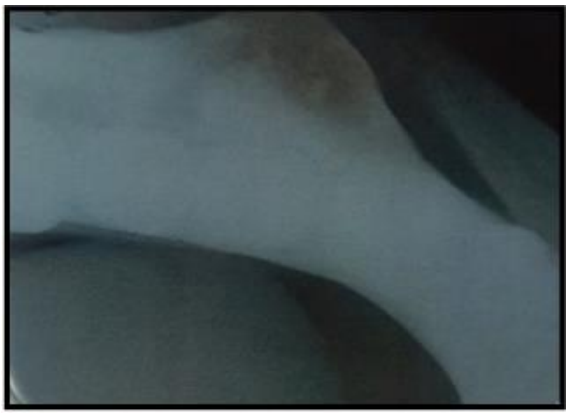

Fig: 7 left mandibular lateral occlusal radiograph

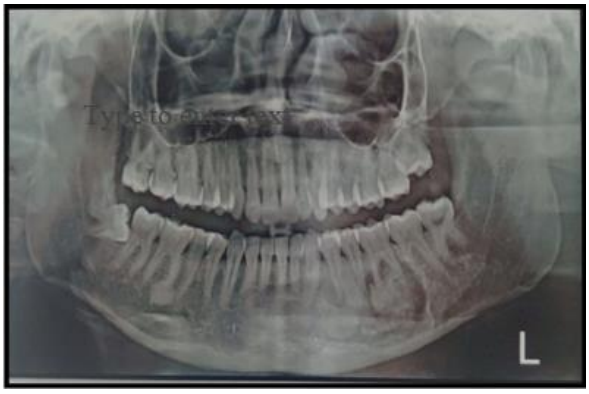

Fig: 8 Orthopantomogram

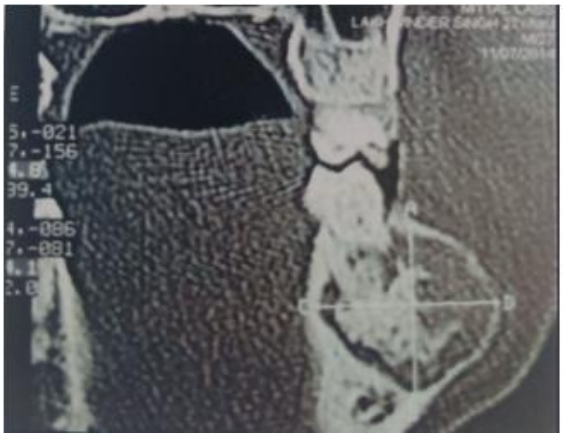

Fig: 9 CT image: coronal section

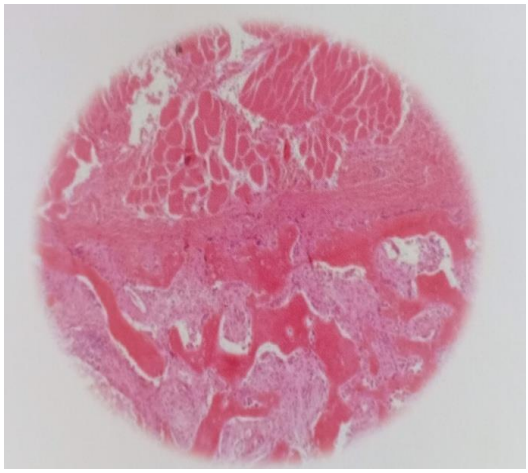

Fig: 10 Histological picture

DISCUSSION

FCOD was first described by Melrose et al in 1976 and is referred as a non-neoplastic, reactive, displastic or developmental fibro-osseous lesion[1] arising in tooth-bearing areas of jaw . It can occur both in maxilla or mandible in multiple quadrants. FCOD is relatively rare phenomenon. It is commonly seen in African descents with a predilection in middle-aged females.FCOD is one of the types of cemento-osseous dysplasia[2] . It appears very closely related to both chronic diffuse sclerosing osteomyelitis and sclerotic cemental masses. FCOD appears as dense, lobulated masses, often symmetrically located in various regions of the jaws[3].The exact etiology[1,2,3] of the lesion is still unknown. Some authors suggest that the pathogenesis come from periodontal ligament . It may arise by the proliferation of the mesenchymal stem cells in the apical periodontal ligament which are cementoblastic precursor stem cells , while some suggest that it may arise from the remnants of the cementum left after tooth extraction. A cc. To Waldron, the reactive or dysplastic changes[4] in PDL might be the cod.fcod is usually asymptomatic. It is diagnosed principally on clinical findings, localisation of the lesion, patient's age, gender and radiographic features. It should be differentiated from Paget's disease, chronic diffuse osteomyelitis and Gardner's syndrome[5]. There is no other skeletal changes, skin tumors or dental anomalies associated with FCOD however Cystic changes similar to simple bone cysts may be seen in association with FCOD[6,7,8,11]. The radiographic features of FCOD may vary from radiolucent lesion to mixed lesion and to rather opaque masses[7,10].FCOD may show familial history with autosomal dominant inheritance pattern but in rare cases[11]. In this case, familial aspect of the disease could not be established.The treatment of FCOD depends on the presence of symptoms. In asymptomatic cases conservative treatment is done[9,14]. Surgical intervention is contraindicated because it may cause more infection.The management of FCOD is rather difficult and may not be satisfactory[12.13]. Oral prophylaxis is important to maintain the periodontal status. The management of symptomatic cases is more difficult as compared to asymptomatic ones.

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