Case Report: Dental science

“A case report of florid cemento osseous dysplasia”

1Jaya Mukherjee, 2Bhagyashri Purandare, 3Chandan Dolare, 4Mahesh Pokle

1Postgraduate studies, Dept of Oral medicine and Radiology, YMT Dental college, Navi Mumbai, India
2Postgraduate studies, Dept of Oral medicine and Radiology, YMT Dental college, Navi Mumbai, India
3Postgraduate studies, Dept of Oral medicine and Radiology, YMT Dental college, Navi Mumbai, India
4Postgraduate studies, Dept of Oral medicine and Radiology, YMT Dental college, Navi Mumbai, India

Corresponding author: Dr Jaya Mukherjee; Email id: drjaya_mukherjee@yahoo.co.in

ABSTRACT:
The term “benign fibro-osseous lesion” refers to a group of conditions in which bone is replaced with fibrous connective tissue containing abnormal bone or cementum. One of these conditions occurring in the jaws is osseous dysplasia (OD) or cemento-osseous dysplasia (COD). Florid osseous dysplasia has often been confused with chronic diffuse sclerosing osteomyelitis in the past. Both the lesions need to be differentiated clinically and radiologically as biopsy may lead to secondary infection or fracture of the jaw. This lesion may be completely asymptomatic and in such cases the lesion is detected in the radiographs incidentally. Radiographic features include multiple radiopaque masses, usually located in three or four quadrants or can be extensive throughout one jaw. However, when they are present in only one jaw, the mandible is the more common location. Management of a asymptomatic patient consists of regular follow up with reinforcement of good oral hygiene to prevent lose of teeth. But the management of the symptomatic patient is more difficult due to dysplastic bone with compromised blood supply, which is susceptible to infection. Here we present a case report of FCOD of a 42 yr old Indian female followed over a period of two years.

KEYWORDS: fibro-osseous, dysplasia, diffuse, sclerosing, FCOD.

INTRODUCTION
Florid osseous dysplasia is a type of sclerosing lesion characterized by multiple, exuberant, lobulated, densely opaque masses restricted to the alveolar process in either or both the jaws. The term florid osseous dysplasia was first described by Melrose et al. in 1976. The word florid was introduced to describe the wide-spread, extensive manifestation of the disease. FCOD is rare in Indian population, and less than 10 cases have been reported in literature, but no cases of familial FCOD in Indian family have been reported till now. It is not unusual to find extensive lesions in all 4 posterior segments of the jaws and is a more extensive manifestation of the same lesion present in periapical and focal cemento-osseous dysplasia. When the lesions are large, jaw expansion and facial deformity may be apparent. The lesions have an avascular nature. Florid cemento-osseous dysplasia, periapical cementosseous dysplasia, and focal cemento-osseous dysplasia have been designated by the World Health Organization as cemento-osseous dysplasias. For the asymptomatic patient, the best management consists of regular recall examinations with prophylaxis and reinforcement of good home hygiene care to control periodontal disease and prevent tooth loss. The lesions should be treated only when symptoms are present.

CASE REPORT
A 42 yr old married Hindu female, nurse by profession, residing in Panvel reported to the outpatient department of ymt dental college and

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hospital on 23rd March 2013 for a routine radiographic follow up for florid osseous dysplasia diagnosed in the year 2011. In the past dental history, patient gave history of visit to YMT dental college and hospital in October 2011 with a chief complaint of pain in the upper left back region of the jaw. The patient also reported that she was given a provisional diagnosis of multiple radicular cysts by the doctor. The patient was then advised for a CT scan and blood investigations for serum calcium and alkaline phosphatase. Also the patient was advised that she might have to undergo surgical enucleation of the dental cysts. Based on the reports of CT scan and normal blood reports, patient was referred to an oral surgeon for the biopsy. A biopsy was then done at Tata Memorial Hospital, Mumbai, and a final diagnosis of florid cemento-osseous dysplasia was given to the patient. Based on the history, the patient was thoroughly examined as follows.

On general examination, the patient was well oriented in time space and person with normal gait. The vital signs were normal. No pallor, icterus, clubbing or cyanosis was reported. On extraoral examination the face was symmetrical with no gross swelling and competent lips. The mouth opening was normal with no deviation. On palpation there was no clicking, tenderness, deviation or crepitations felt. The muscles of mastication were nontender on palpation. There were no palpable lymph nodes.

**INTRA-ORAL EXAMINATION**

The labial and buccal sulci, the lingual sulci, floor of mouth, tongue appeared to be normal. The gingival was firm and resilient and pale pink in colour. Periodontal pocket with 36 was present.

Teeth present were:

11,12,13,14,17,18,21,22,23,25,28,31,32,33,34,35,36, 37,38,41,42,44,45,47,48

Based on the intraoral examination a diagnosis of chronic marginal and papillary gingivitis with localised periodontitis with 36 was given. The patient was then advised for an OPG based on the previous dental history.
RADIOGRAPHIC EXAMINATION

Also the previous CT scan reports along with the previous opg were evaluated and compared with the current opg to arrive at a final diagnosis. The previous opg showed three distinct radiolucencies surrounded by a thin sclerotic border in the mandible as can be seen in fig 3.

The previous CT SCAN report confirmed with the findings of the opg that there were three lytic lesions in the body of the mandible, two on the left side and one on the right with the roots of the molar teeth. Also there was evidence of bony expansion and cortical thinning as can be seen in fig 4. CT scan report after 1 year in 2012 revealed well defined lytic lesions in the body of the mandible with reduction in size of the left lytic lesion with increased sclerosis as can be seen in fig 6.
The recent opg revealed radiolucency surrounded by diffuse radio-opacities in the mandibular body on the left side in relation with the roots of molar. Also a distinct radiolucent lesion surrounded by a sclerotic border was seen in the right mandibular body in relation to the roots of the second molar as seen in fig 5. Based on the follow up and findings a mixed stage of florid cementosseous dysplasia was diagnosed. Patient was advised for routine dental check up and to maintain a good oral hygiene.

**DISCUSSION**

FCOD is the most common pathologic condition of the jaws that occurs as radiopacities in multiple quadrants of the tooth-bearing regions of the jaws. Waldron et al have proposed that reactive or dysplastic changes in the periodontal ligament might be a cause for the disease. Paget’s disease of bone may also mimic this condition, only difference being that FCOD is centered above the inferior alveolar canal whereas Paget’s involve the entire mandible. These lesions are characterized by replacement of bone by connective tissue matrix, the matrix displaying varying degrees of mineralization in the form of woven bone or cementum-like round basophilic acellular structures. The condition needs to be clinically and radiographically distinguished from chronic sclerosing osteomyelitis. Florid cementosseous dysplasia has been interpreted as a dysplastic lesion or developmental anomaly arising in tooth-bearing areas. In addition, florid cementosseous dysplasia is frequently associated to black women, while chronic diffuse sclerosing osteomyelitis is seen predominantly in adult Caucasian men. Radiologically; FCOD consists of masses with different degrees of opacity with or without a radiolucent margin. The diagnostic criteria include diffuse alveolar involvement not limited to the apices of the teeth and affecting more than one quadrant.

**CONCLUSION**

In conclusion, generally when a lesion is found in the jaws, the diagnosis is suggested by clinical and radiographic findings and is confirmed by histopathology. However, FCOD is a condition in which the diagnosis relies on radiology and clinical findings alone, and biopsy is not mandatory due to the increased risk of infection.

**REFERENCES**


