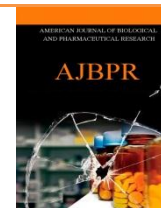




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CONDENSING OSTITIS: A CASE REPORT

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ABSTRACT

Condensing osteitis is a periapical inflammatory disease resulting from a reaction to an infection of periodontal origin causing bone formation. The bone formation results from an infection of dental pulp. Condensing osteitis is also known as sclerosing osteitis. It is named so because there occurs a sclerotic bone formation in jaw bone which is a result of stress, trauma or injury to the bone while the tooth is still being developed. This article focuses on a case report of a male patient coming to us for a treatment of pain in his teeth. The Condensing osteitis was an accidental radiographic finding. This article also tells us about the treatment modalities required for such cases.

INTRODUCTION

Condensing osteitis is a periapical inflammatory disease resulting from a reaction to an infection of periodontal origin causing bone formation. Bone formation results due to the infection of dental pulp [1]. Most common site for condensing osteitis is near the root apices of premolars and molars though it can be seen anywhere in the jaws. The lesion appears as a radio-opacity in the periapical. Condensing osteitis is also known as sclerosing osteitis, chronic focal sclerosing osteomyelitis, Garre's disease etc [2]. The sclerotic reaction results from good patient immunity and a low degree of virulence of the offending bacteria. The associated tooth may be carious or contain a large restoration. Usually condensing osteitis is seen with a non-vital tooth. There is no requirement of treatment in such cases as the patient is not aware about its presence and it is a normal mechanism of body to halt the spread of infection in the bone [3]. The process is usually asymptomatic and benign hence the tooth does not require any endodontic treatment also.

The tooth should be tested for vitality, if inflamed or necrotic, then endodontic treatment should be performed while the hopeless teeth should be extracted. The prognosis of such bony changes is good as there is no requirement of treatment [4].

Case Report

A 38 year old male patient came to us with a chief complain of pain in his lower right back tooth region since 1 year. The pain used to increase while eating food and decrease while lying down. He was not taking any medications for its correction nor there was any previous relevant medical or dental history associated with the patient.

Clinical examination revealed a deep caries in first molar. Rest of the extra oral and intra oral examination was normal. An IOPA of the carious tooth was suggested to the patient. The radiograph revealed small radio-opaque masses arranged in clusters at the root apices of the carious tooth. A diagnosis of condensing osteitis was also given to tooth and the patient was endodontically operated for his carious tooth. No post-operative complications were noted.

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DISCUSSION

One should not mix all the small clustered radio-paque masses around the root apices of the carious lesions as condensing osteitis. Before giving a diagnosis of condensing osteitis, its differential diagnosis should be ruled out. Differential diagnosis of condensing osteitis includes idiopathic osteosclerosis and cementoblastoma [5]. Idiopathic osteosclerosis is a condition which is also found around the roots of a tooth. It is usually painless and found during routine radiographs. There is no sign of inflammation of the tooth and it also appears as small radio-opaque masses around roots of the tooth. It is differentiated by condensing osteitis by the site and the inflammatory changes seen. The cementoblastoma usually occurs in people under the age of 25 particularly males and it usually involves the permanent mandibular molars or premolars. The involved tooth usually has a vital pulp [6]. It is attached to the tooth root and may cause its resorption, may involve the pulp canal, grows slowly, tends to expand the overlying cortical plates, and, except for the enlargement produced, is usually asymptomatic. This the key feature to differentiate cementoblastoma from condensing osteitis as condensing osteitis can occur in any place in jaw affect all the age group and there is no resorption or expansion seen. In the study by Williams and Brooks, 53.5 % of 187 radio-opaque lesions were classified as idiopathic sclerosis, and

46.5 % as condensing osteitis with 91 % of the lesions localized in the mandible and only 9 % in the maxilla [7]. They found condensing osteitis in 4.5 %, while Wood and Goaz in 8 %, and Marmary and Kutiner in 6.7 % of radiographically examined cases [8]. It should be noted that condensing osteitis develops most frequently around teeth with deep untreated caries, deep filling, or untreated pulp. Such cases commonly lead to chronic pulpitis, which in turn leads to reactive osteogenesis in the periapical region [9]. The size of condensing osteitis may vary from 1 mm to 22 mm with mean width and height of 5 mm and shape may vary from round (32 %) to irregular (64 %) and U-shape in 4 % of cases as told by Williams P in 1998 [10].

CONCLUSION

Regular radiograph plays an important role in the diagnosis of condensing osteitis in patients. In the management of condensing osteitis, a number of therapeutic options are available and the choice depends on the tooth condition and as for the treatment of condensing osteitis in particular, no treatment is required as it is a normal response of host immunity to halt the spread of the infection. Uncommonly, condensing osteitis occurs as a reaction to periodontal infection rather than to dental infection.

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