

Cemento-Ossifying Fibroma of The Mandible : A Case Report

*Dr Hiranya Borah¹ , Dr RupjyotiDas² , Dr Devjani Das³

¹Associate Professor, Deptt Of Ent & Head-Neck Surgery, Gmch, India

²pgt, Deptt of Ent & Head-Neck Surgery, Gmch, India

³pgt, Deptt Of Ent & Head-Neck Surgery, Gmch, India

Corresponding author: *Dr Hiranya Borah

Abstract: The cemento-ossifying fibroma is classified as a fibro-osseous lesion of the jaws. They are included in the group of mesodermal odontogenic tumors and commonly present as a progressively growing lesion that might attain enormous size with resultant deformity, if left untreated. We present a case of cemento-ossifying fibroma involving the lower right jaw in a 13 year old female patient. The clinical, radiographic, histologic features are discussed. The treatment comprised of surgical enucleation. The final diagnosis was made after histopathological examination.

Keywords : Cemento-ossifying fibroma, odontogenic tumours, fibro-osseous lesion

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I. Introduction

Cemento-ossifying fibroma is a rare benign neoplasm that usually arises from the mandible and maxilla. It is most commonly seen between the third and fourth decades of life and is more frequent in women than in men, the ratio being 4:1 (1,2). The most common location is the mandible which constitutes about 70-90% of all cases (3,4). Clinically, these tumours manifest as a slow-growing intrabony mass that is normally well delimited and asymptomatic though over time the lesion may become large enough to cause facial deformation. Radiologically, Cemento-ossifying fibroma shows a number of patterns depending on the degree of mineralisation of the lesion. The latter manifests as a well delimited unilocular lesion containing variable amounts of radio-opaque material. Histologically, these tumors are composed of well-vascularised fibrocellular tissue with the capacity to form immature bone trabeculae and cementoid formation, though these findings are not specific of the lesion and can also be seen in fibrous dysplasia (5).

II. Case Report

A 13 yr-old girl called Bobita Daimari presented to us with a complaint of swelling on the lower right jaw. It was noticed by her 6 months ago, had been growing slowly and was not associated with pain. It was present on the body of mandible and extended along the inferior border of mandible. There was history of trauma in the area 2 years ago. There was no difficulty in mouth opening or chewing as well as no intraoral bleeding.

III. Examination

On intraoral examination, the swelling was found to be about (4cm * 2cm) size in the right gingivobuccal sulcus with the overlying mucosa being normal in appearance. It was firm in consistency with smooth surface. It was non-tender and did not bleed on touch.



IV. Investigations

Along with routine blood investigations, we got an Orthopantomogram (OPG) done which showed it to be right-sided lower jaw cyst.

V. Provisional Diagnosis

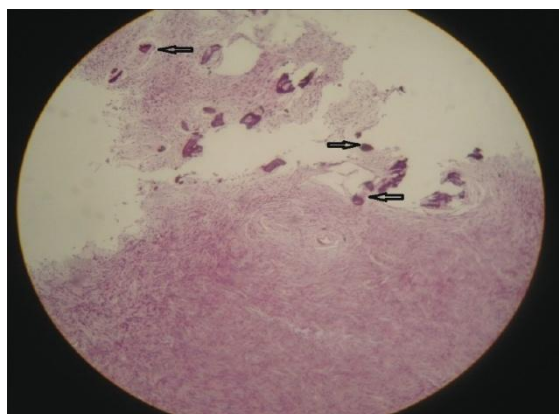
We provisionally diagnosed it to be a case of Aneurysmal Bone Cyst of mandible.

VI. Treatment

Surgical enucleation with curettage of the lesion was done and the enucleated material was sent for histopathological examination.

VII. Histopathological Report

Histopathological picture showed masses of fibrous tissue containing numerous pink dense calcified nodule and sections from decalcified tissue showed lamellar bones only. Therefore, the lesion was finally diagnosed as a Cemento-Ossifying Fibroma.



HPE of the lesion showing highly cellular fields with calcified areas

VIII. Discussion

Cemento-ossifying fibroma is a well-demarcated benign fibrous neoplasm that contains varying amounts of calcified tissue resembling bone, cementum or both (6,7). These tumours are thought to arise from the periodontal ligament and are composed of varying amounts of cementum, bone and fibrous tissue (8). It is a slow-growing lesion most often seen in women between the third and fourth decades of life. While one-half of all cases are asymptomatic, the growth of the tumour over time may lead to facial asymmetry, with the appearance of a mass causing discomfort or mandibular expansion, and the possible displacement of dental roots (8,9). Although the underlying exact cause is not known yet, majority of the cases in literature have been found to have a history of trauma in the area of the lesion.

IX. Conclusion

In accordance with the data found in the literature, our patient reported to have suffered from trauma in the affected area 2 yrs ago. Thus, this points to trauma as a possible triggering factor, postulating the lesion to be a connective tissue reaction rather than a genuine neoplasm. The recommended treatment of the central cemento-ossifying fibroma is excision. Due to the good delimitation of the tumour, surgical removal and curettage is done in our case which is also the treatment of choice.

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