Case report

Benign Cementoblastoma with Permanent Mandibular Molars: A rare case report.

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ABSTRACT

Aims: A rare benign odontogenic tumor of the jaws that typically affects young people is calledcementoblastoma.
Presentation Of case: This case report details the massive cementoblastoma that affected the right mandibular body of a 20-year-old female patient, stretching from the mandibular first molar to the third molar. Cementoblastoma was the tentative diagnosis made based on the radiological and clinical characteristics.
Disscusion and conclusion: Surgery was performed to remove the lesion and the associated permanent molars. It was determined by a histological analysis to be a benign cementoblastoma. There was no sign of a recurrence at the one-year follow-up, and the healing was quite good.

Keywords: Mandibular molar, Tumour, exicison, cementoma

1. INTRODUCTION

Cementoblastoma is a rare benign lesion representing less than 1% of all odontogenic tumors.Dewey gave the first description of it in 1927 [1]. It is believed that this lesion is the only benign tumor of cementum origin.Cementoblastomais classified as a benign odontogenic tumor that originates from odontogenic ectomesenchyme without the proliferation of odontogenic epithelium, under the World Health Organization's (WHO, 2017) suggested classification [1]. It is typified by the proliferation of tissue that resembles cementum and is nearly always connected to a permanent tooth that has erupted, usually the first molar.The present case report describes a true cementoblastoma in relation to the right permanent mandibular molar in a 20-year-old female, along with the radiographic and histological findings of the lesion in detail.

2.CASE REPORT

A 20-year-old female reported to the Department of Oral and Maxillofacial Surgery of MIDSR Dental College and Hospital Latur with a chief complaint of pain and swelling in her lower right back teeth and jaw region for the last six months. The pain was constant and dull aching, which aggravated mastication. The swelling was gradual, hard in consistency, and progressive till the time of presentation.

On intraoral examination, there was a buccal and lingual cortical expansion with bony, hard, and slightly painful on palpation in the buccal vestibule in relation to the permanent first mandibular molar. Tenderness on percussion was present with the first, second lower molars, and second premolar. No associated neurosensory deficit in the lower lip is present. A mass that was mostly radiopaque, ovoid, and above the mandibular canal roof was evident on CBCT. It was associated with molar teeth nor causing displacement of adjacent anatomical structures. (fig. 1)

An approximately 1–1.5 cm radiopaque mass, well defined by a radiolucent halo, was found on the orthopantomogram, attached to roots of the primary right mandibular first molar. Based on the clinical and radiological observations, we have tentatively diagnosed benign cementoblastoma. Juvenile ossifying fibromas, osteomas, osteoblastomas, odontomas, periapical cemental dysplasia, condensing osteitis, and hypercementosis were among the conditions included in the clinical differential diagnosis.

Benign cementoblastoma was the tentative diagnosis, and general anesthesiawas used during the entire surgical removal process, along with the evacuation of the molar that was connected with the tumor. Due to its perforation of the buccal cortex in the area, the lesion was easily distinguishable from normal bone at the time of surgery.

(Fig.2). The periphery of the bony cavity was curetted (Fig.3), and the wound was closed primarily. The post-operative period was uneventful. After a year, there was no evidence of recurrence, the healing was excellent.

3.DISCUSSION

Cementoblastoma is a rare lesion representing <1% of the odontogenic tumors. Cementoblastoma is a rare neoplasm derived from the odontogenic ectomesenchyme of cementoblasts that forms a cementum layer on the roots of a tooth. The primary distinguishing feature of cementoblastoma is its connection to the root of the offending tooth[2].

Although aggressive behaviorhas been reported, the benign cementoblastoma, which was initially reported by Dewey in 1927, is a slow-growing benign odontogenic tumor emerging from cementoblasts [3].

It is uncommon for a lesion to affect more than one permanent tooth, as this case does [4]. The lesion is always connected to the tooth root, no matter how many teeth are affected [5].

For some patients, there may be no symptoms at all, however discomfort and bone growth are possible.

Dental displacement, trismus [8, 10], and increased neighboring tooth movement may eventually be noticed. For cementoblastomas, surgical excision of the lesion together with the tooth or teeth and any afflicted structures is the preferred course of treatment. Either full curettage of the diseased area or peripheral osteotomy of the entire region follows. In cases where a late diagnosis is made and the tumor has already reached significant proportions, as in this report, the complete removal of the lesion and associated structures is recommended due to the unlimited growth potential [7] and eventual recurrence. Treatment options for early diagnosis include complete excision of the lesion with preservation of the involved tooth, thorough endodontic treatment7, and, in some cases, apicoectomy.

Cortex and mandibular expansion

Furthermore, sixteen cases [6] demonstrated tumor persistence even following surgical lesion excision and extraction of the affected tooth or teeth, classifying the cases as recurrent cementoblastomas. Remarkably, a larger percentage of cortical growth and perforation has been reported in these recurrent tumors than in nonrecurrenttumors [6]. The microscopic discovery of numerous tiny tumor foci positioned between neighboring tooth resorption and the trabeculae of normal bone supports this. Therefore, surgical excision of the cementoblastoma, including the affected tooth or teeth, is advised in conjunction with curettage or peripheral ostectomy in cases of recurrence [8].

4. CONCLUSION

Cementoblastoma is a benign tumor that has limitless potential for growth but a low recurrence rate. Surgical extraction is the appropriate course of treatment, and early diagnosis allows for a more cautious procedure that may save the affected teeth. When a tumoris found in an advanced stage of growth, it is best to remove the teeth as well in order to reduce the chance of a recurrence.

Cementoblastoma is a rare lesion, however it should be taken into account when making a differential diagnosis for periapical radio-opacities. Because of its attachment to the tooth's root, the diagnosis is made. Because of this odontogenic tumor's attachment to the tooth root, clinical and radiographic presentation, and etiology, it merits significant scholarly attention.

CONSENT

The informed signed consent was obtained from the patient.

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Figure 1: CBCT showing lesion

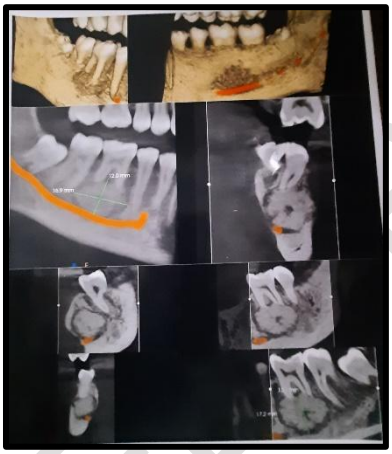

Figure 2: Complete removal of lesion

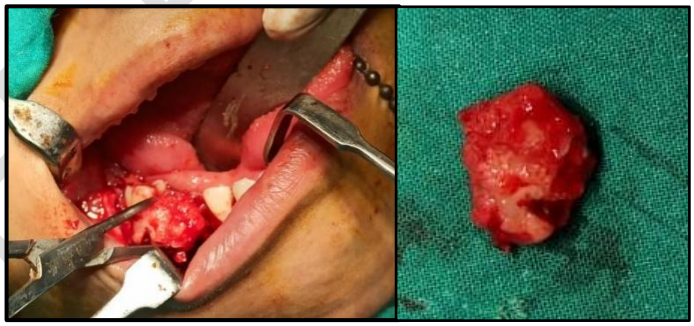

Figure 3: Cavity curettage done