

Complex Odontome in Angle of Mandible : A Case Report

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Abstract

Odontomes are hamartomas composed of various dental tissues, i.e., enamel, dentin, cementum and sometimes pulp. They are slow-growing, benign tumours showing nonaggressive behaviour¹. They are classified as complex, when the calcified tissues are present simply as an irregular mass composed mainly of mature tubular dentin, or compound, if there is superficial anatomic similarity to even rudimentary teeth². Complex odontome are less common than the compound variety in the ratio 1:2³. We present a case of complex odontome, in a 42 year old male in the area of left angle of mandible region.

Introduction

The term "Odontoma" was coined by Paul Broca in 1867. Odontome are considered as the developmental anomalies resulting from the growth of completely differentiated epithelial and mesenchymal cells that give rise to ameloblast and odontoblast. WHO classifies odontomes into: compound and complex odontome. These are composed of more than one type of tissue and hence termed as composite odontome. The compound odontome is a malformation in which all the dental tissues are in a more orderly pattern so that the lesion consists of many tooth-like structures^{4,5}. When these calcified dental tissues are simply an irregular mass, bearing no morphologic similarity even to rudimentary teeth, they are termed composite complex odontome.

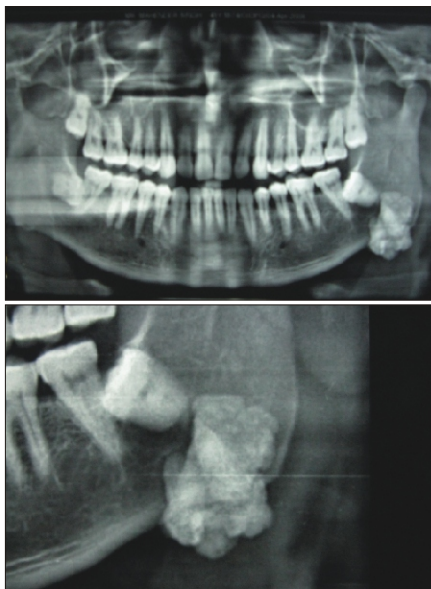
Case Report

A 42 year old male reported to the dental OPD with complaint of swelling on left side of lower jaw since 5-6 yrs. Swelling was asymptomatic and non-tender.

On extra oral inspection the swelling was located in left angle region extending superiorly from mid ramus area to antegonial notch inferiorly and posteriorly from posterior border of mandible to third molar region anteriorly. Overlying skin was of normal colour and texture with no fixation to underlying tissue. On intra oral examination there was no buccal or lingual plate expansion. There was no dysesthesia of the left lower lip and tongue, mouth opening and lateral excursion of the jaw was adequate.

Patient was advised for an Orthopantomogram (Fig. 1) which showed a well-defined but irregular radio-opacity below mesio-angular impacted mandibular third molar of left side. The radio opacity of the mass was similar to that of enamel, and it was approximating at the inferior alveolar canal (Fig. 2)

Patient was advised for routine blood and



urine examination, which were in normal limits. A provisional diagnosis of complex odontome was made on the basis of irregularity of the mass and the treatment was planned for therapeutic excisional biopsy under General Anesthesia. The lesion was approached through a left submandibular incision (Fig. 3) and excised (Fig. 4) followed by wound closure in layers. Following excision inter-maxillary fixation was done for



a period of six weeks to avoid chances of pathological fracture at the angle region. The histopathological confirmed the provisional diagnosis of complex odontome.

Discussion

Odontomes are the most frequent benign odontogenic tumors in oral cavity. They are generally asymptomatic and constitute casual

findings in the course of routine radiological studies, particularly in the second and third decades of life⁶. Some sign and/or symptom is occasionally seen the most common condition being delayed tooth eruption^{7,8}. Etiologies of odontome formation are numerous. Odontomas have been associated with trauma during primary dentition, as well as with inflammatory and infectious processes, hereditary anomalies (Gardner syndrome, Hermann's syndrome), odontoblastic hyperactivity and alterations in the genetic components responsible for controlling dental development⁹.

The mechanism of odontoma eruption appears to be different from tooth eruption because of the lack of periodontal ligament in odontoma. Therefore, the force required to move the odontoma is not linked to the contractility of the fibroblasts, as is the case for teeth. Although there is no root formation in odontoma, its increasing size may lead to the sequestration of the overlying bone and, hence, occlusal movement or eruption. An increase in the size of the odontoma over time produces a force sufficient to cause bone resorption¹⁰.

In the present case, the patient was 42-year-old, was asymptomatic, with the chief complaint of swelling in mandibular angle region. Based on the clinical, radiological, and histopathological findings, it was diagnosed as complex odontome.

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