

## Case Report

### Complex Odontoma with Associated Oligodontia: A Case Report

Neha Verma<sup>1</sup>, Adit Srivastava<sup>2</sup>

<sup>1</sup>Senior Resident, <sup>2</sup>Associate Professor, Unit Of Oral Medicine and Radiology, Faculty of Dental Sciences, Institute Of Medical Sciences, Banaras Hindu University, Varanasi, India

#### ABSTRACT:

Odontomas are benign odontogenic tumours made up of dental tissues. They often go undiagnosed, and are diagnosed inadvertently on radiographs. Odontomas are frequently associated with impacted teeth causing disruption in eruption of teeth. They lead to intricacy in function and esthetics. The present case is of complex odontoma which caused impaction of mandibular third molar and missing second molar.

**Key words:** Complex odontoma, compound odontoma, odontogenic tumor, impacted molar, oligodontia.

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**Corresponding author:** Dr. Neha Verma, Senior Resident, Unit Of Oral Medicine and Radiology, Faculty of Dental Sciences, Institute Of Medical Sciences, Banaras Hindu University, Varanasi, India

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#### INTRODUCTION

Odontomas are defined by WHO(2005) as benign tumours of odontogenic origin composed of dental tissues. Paul Broca in 1867 coined the term "odontoma" and defined them as "tumors formed by the overgrowth of transitory or complete dental tissues".<sup>1</sup> They are considered mixed odontogenic tumours as they constitute both mesenchymal and epithelial components. Odontomas have an unclear etiology though trauma, infection and hereditary causes are implicated in its pathogenesis.<sup>2</sup> They can be classified into two categories 1) compound and 2) complex. compound odontomas resemble tiny tooth structures whereas complex forms appear as undifferentiated conglomerate of dental tissues. Complex odontomas involve posterior region of jaws and compound is often seen in anterior jaw regions.<sup>3</sup> odontomas are frequently associated with unerupted teeth and diagnosed accidentally on radiographic examinations.<sup>4</sup> the present case is of a complex odontoma associated with unerupted mandibular second molar.

#### CASE REPORT

A 16 year old male reported in the department of oral medicine with complaint of non erupting right mandibular

posterior teeth. On examination right mandibular second molar was missing.[fig.1]



**Figure 1:** Intraoral picture showing missing right mandibular second molar

Patient was advised orthopantomogram to check for impacted or absent mandibular second molar. Orthopantomogram showed a radiopaque mass measuring 3x3cm approximately in right mandibular posterior region wrt 47,48. An impacted third molar displaced to right mandibular angle region was also seen.[fig.2]



**Figure 2:** Orthopantomogram showing radiopaque mass wrt 47,48 and displaced third molar.

Based on above findings it was diagnosed as case of mandibular odontoma. An excisional biopsy was performed which showed conglomerated mass of tooth like structure. [fig.3][fig.4]



**Figure 3:** Intraoral picture showing conglomerate tooth like mass



**Figure 4:** conglomerated tooth like mass after surgical removal

Histopathological examination revealed areas of dentinal tubules and cementum thereby confirming the diagnosis of complex odontoma.

#### DISCUSSION

Odontomas are most common odontogenic benign tumours seen generally in 1<sup>st</sup> and 2<sup>nd</sup> decades of life.<sup>2</sup> According to Thoma and Goldman odontomas can be classified as

1. Geminated composite odontomes—two or more, more or less well-developed teeth fused together.
2. Compound composite odontomes—made up of more or less rudimentary teeth.
3. Complex composite odontomes—calcified structure, which bears no great resemblance to the normal anatomical arrangement of dental tissues.
4. Dilated odontomes—the crown or root part of the tooth shows marked enlargement.
5. Cystic odontomes—an odontome that is normally encapsulated by fibrous connective tissue in a cyst or in a wall of cyst.<sup>5</sup>

Odontomas often interrupt eruption of teeth or cause tipping, displacement of adjacent teeth, retention of primary teeth and even progression to cystic lesions.<sup>3</sup> in our case mandibular third molar was embedded due to presence of odontoma in the posterior region and second molar was missing. Compound odontomas do not show bony expansion whereas in complex odontomas slight to marked expansion can be seen,<sup>6</sup> bony expansion was absent in our case. Differential diagnosis of ossifying fibroma, fibro-osseous lesions, calcifying odontogenic cyst, calcifying odontogenic tumor, fibro-odontoma and osteoblastoma should be considered. Treatment includes surgical removal and clinical and radiological follow ups, if impacted tooth is present it can be planned for orthodontic traction.

#### CONCLUSION

Odontomas are benign tumours which can cause significant difficulties for patients as they often go undiagnosed.

Patients with history of unerupted; missing teeth should be evaluated for possible odontomas.

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