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## A Large Dental Hamartoma of Mandible in a Young Girl - Complex Odontoma

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**Abstract-** Odontomas are benign tumors of odontogenic tissue which are categorized as hamartomas because they result from developmental malformation of odontogenic tissues. They are classified into Compound Odontoma and Complex Odontoma. Compound odontomas are reported to be twice more common than complex odontomas. Complex odontoma is a rare tumor. Complex odontomas are usually asymptomatic, and they are accidentally noticed during a routine radiographic examination. But here we report and discuss a case of complex odontoma with unusually large size causing a disturbance in the eruption of second mandibular molar in a young girl who presented with chief complaint of pain and swelling on right side mandible.

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# A Large Dental Hamartoma of Mandible in a Young Girl - Complex Odontoma

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## I. INTRODUCTION

Odontomas are the most common odontogenic tumors. They are classified into Compound Odontoma and Complex Odontoma. Clinically complex odontomas are very rare when compared to compound odontomas. They are asymptomatic and are discovered during a routine dental examination; hence here we aim to report such a rare case of complex odontoma in a young girl who presented to us with a chief complaint of swelling associated with pain in the right mandibular region.

## II. CASE REPORT

A 14-year-old female patient presented with a chief complaint of swelling in the right lower jaw region for 15 days. Patient history revealed that the patient was asymptomatic before 15 days later she noticed a painful swelling which gradually increased to present size. The patient had no history of trauma. Her medical and family history was not remarkable.

Extraoral examination revealed a solitary swelling measuring approx 3x2cms in size, present on the right side of the mandible extending from midway of the body of the mandible to angle of the mandible, roughly oval in shape, smooth surface, no color change is seen. On palpation, the swelling was tender, soft in consistency, non-compressible, and non-reducible. On intraoral examination, we noticed missing mandibular

right second molar tooth. There was swelling in the region of 47 measuring approx 1x1cms in size, extending from the distal aspect of 46, no color change and no other secondary changes were noticed. On palpation, there was vestibular tenderness about right mandibular second molar region, tender and hard on palpation. Provisional diagnosis considered was the impacted second molar with a suspected dentigerous cyst.

IOPA and OPG was advised. They revealed a well defined radio opaque mass surrounded by a thin radiolucent line in association with an un-erupted mandibular right second molar. A diagnosis of complex odontoma was given based on the clinical and radiographic presentation of the lesion.

Under local anesthesia, intraorally the lesion was approached and excision of the lesion was done along with the extraction of the impacted second molar. After thorough curettage the wound was closed by placing sutures then the specimen was sent for histopathological examination. Histopathological examination suggested the diagnosis of complex odontoma. The patient was under observation for 6-months.



Fig. 1: Preoperative Frontal View of the Patient

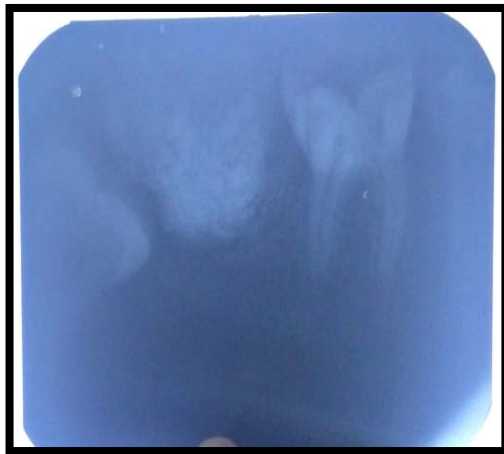
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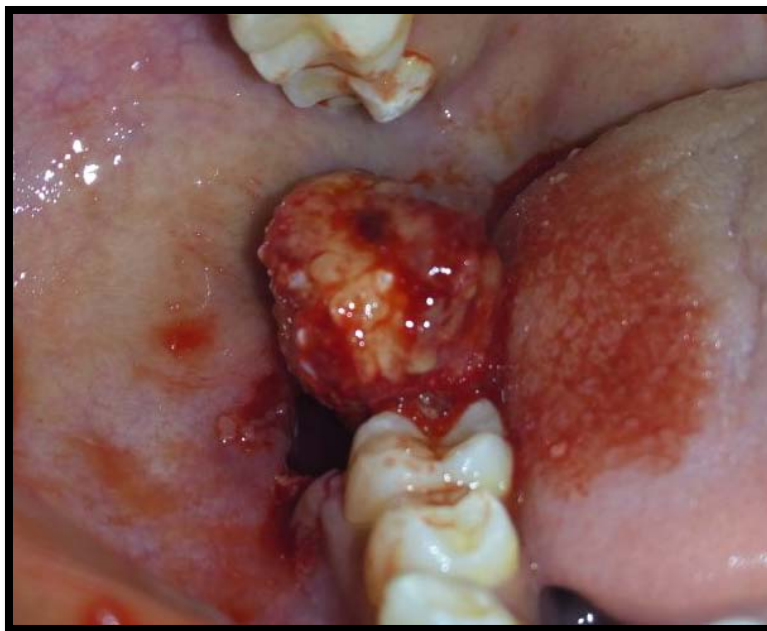
*Fig. 2:* Preoperative Intraoral View of the Patient



*Fig. 3:* Preoperative IOPA & Orthopantomograph Revealing Radio Opaque Mass & Impacted Second Molar



*Fig. 4:* Photograph Showing the Exposed Odontoma



*Fig. 5:* Photograph Showing Completely Exposed Odontoma



*Fig. 6:* Excised Specimen

### III. DISCUSSION

The term Odontoma was first coined by Paul Broca in 1947 [1,2,3]. Odontomas are benign tumors that arise from the odontogenic tissues and are developmental in origin [4]. The etiology of these tumors may be due to trauma or infection [5,6,7,8,9]. There is no gender distribution [7,8,9]. WHO in 2005 classified odontomas in two types namely compound and complex odontomas [10,11]. The most common age of occurrence is 12-18 years. Odontomas can occur anywhere in the jaws; compound odontomas are seen most frequently in the maxillary canine and incisor

region whereas the complex odontomas are found more commonly in the mandibular molar region [10,11].

Clinically these tumors are asymptomatic. Since most of the odontomas are asymptomatic, they are found during the routine dental examination. The clinical indicators for the presence of odontoma include retention of deciduous teeth, noneruption of permanent teeth, pain, swelling, expansion of the cortical bone and tooth displacement [4,5,6].

On radiograph complex odontoma appears as a radioopaque mass which does not resemble tooth structure. Based on the degree of calcification of the lesion there are three developmental stages



radiographically. The first stage is characterized by radiolucency due to the absence of dental tissue calcification; the second or intermediate stage shows partial calcification and the third or classically radiopaque stage exhibits predominant tissue calcification with the surrounding radiolucent halo [12,13]. In our case study, we presented a mature third stage classically radiopaque complex odontoma.

Complex odontoma is characterized by sheets of immature tubular dentin with encased hollow tooth-like structures histologically. The treatment of choice is Conservative surgical excision of the lesion.

#### IV. CONCLUSION

Large complex odontomas are characterized by expansion of cortical plates, and if such odontomas are left untreated they can cause pathological fractures, facial asymmetry and paresthesia hence surgical excision is the treatment of choice.

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