

CASE REPORT

Unusual Case of Complex Odontome Obstructing Eruption of Adjacent Mandibular Second Molar : A Case Report

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Abstract

An odontome is the most common benign tumor of odontogenic origin. It is composed of normal dental tissue that has grown in an irregular way. This condition is frequently associated with one or more unerupted teeth. Broadly classified as compound, complex and odonto ameloblastoma. Complex odontome forms a rare entity. Odontomes are asymptomatic and are generally diagnosed on radiographic examination. Occasionally these become large causing expansion of bone leading to facial asymmetry. We report a case of complex odontomes associated with mandibular third molar tooth obstruction the eruption of adjacent second molar tooth in a young boy. The odontome was removed along with the impacted second molar through extraoral approach.

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Keywords: complex odontome, mandible, odontogenic tumor.

Introduction

WHO has defined Odontome as a malformation in which all of the dental tissues are represented and individual tissue mainly are well formed but occur in disorderly

manner. Term odontoma was first coined by Broca¹⁻⁴. Odontomes constitute about 22% of all cases with relatively uncommon tumor category which shows large geographic variation in incidence¹⁻⁵. They occur in first and second decade of life, compound odontome is twice as common when compared to complex odontome. Complex odontome occur in mandibular first and second molar region with slight or bony expansion, more prevalent in females. The treatment of choice is surgical excision. Histopathological study was done to confirm the diagnosis. This is a case report of complex odontome of mandible in a 14 year old child with slight bony expansion and impaction of mandibular left second molar.

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Case Report

A 14 year old male patient presented to our department with a chief complaint of swelling in the left lower jaw for two months. There is no history of trauma. On extra oral examination a swelling measuring approx 3×2 cm on the left lower region of mandible was seen. On palpation the swelling was hard, non tender, non reducible and non compressible. Intra oral examination showed that the left second mandibular molar was missing. Subsequently an OPG was advised which revealed multiple radio opaque masses and an impacted mandibular left second molar as well. Provisional diagnosis of complex odontome was made. Ameloblastic odontoma and Ameloblastic fibroodontoma were considered in the differential diagnosis. Under GA the lesion was approached extraorally. Odontomes were completely enucleated and the impacted second molar was then extracted. After curettage and copious irrigation, wound was closed layer wise by 3-0 vicryl and 3-0 silk respectively. The specimen was sent for a histopathological examination which further confirmed its diagnosis. The patient was under a regular follow up period for few weeks. There was a slight paresthesia of lower left lip region post operatively that subsided within a period of three weeks.



Fig. 1: Orthopantomogram showing complex odontome over the impacted mandibular left second molar.



Fig. 2: Exposure of impacted tooth via submandibular approach



Fig. 3: The removed impacted second molar and pieces of odontome

Discussion

Complex odontoma is a common odontogenic tumor usually presents as a painless mass, rarely exceeding the size of the tooth. Most of them discovered accidentally on radiographic examination. Usually symptomless but may be associated with impacted permanent teeth and swelling¹⁰. These consists of epithelial and mesenchymal tissue that get differentiated into odontogenic structures such as enamel, dentin, cementum or pulp. Two types of odontomas are present. Compound odontomes are encapsulated, tooth like mostly found in anterior maxilla. Complex odontomes have no resemblance to tooth like structures. They exhibit mixture of hard and soft dental tissue. They are mostly found in posterior mandible^{1,2,3,8}. On the basis of location odontomes can be central (intraosseous) or peripheral (extraosseous)^{3,8}. They are thought to arise from budding of extra odontogenic epithelial cells from dental lamina. Odontomes are likely to occur if injury occurs in early childhood⁴. Although odontomes are common odontogenic tumor but multiple complex odontomes is a rare entity. Sometime these odontomes may be found associated with dentigerous cyst or with some systemic disease such as familial adenomatous polyposis¹¹. Treatment consists of complete excision of the tumor along with the soft tissue so as to prevent further complications such as cyst formation, cystic degeneration or finally conversion to odonto-ameloblastoma.

Conclusion

They are benign lesions and non aggressive in nature but sometime they develop unusual characteristics such as extensive size and multiple lesions. Sometime complications like

pain, malocclusion, facial asymmetry, sinusitis and brain abscess may occur^{9,10}. Since they are the common jaw tumor, adequate knowledge of their characteristics is necessary for their proper diagnosis and management.

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