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COMPLEX ODONTOME - A RARE CASE REPORT

Aanshika Tiwari[*1], Srinivas K[2], Ratnakar P[3], Gupta Jyoti[3], Sachdev Arti Saluja[4]

[1]Post Graduate student, [2]Professor and HOD, [3]Professor, [4]Senior Lecturer, Dept. of OMDR,
Career Post-Graduate Institute of Dental Sciences, Lucknow, Uttar Pradesh, India.

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ABSTRACT

Odontoma, complex type is an agglomerate of all the dental tissues that are characterized by normal histo-differentiation but abnormal morpho-differentiation producing little or no resemblance to normal tooth form. They are usually asymptomatic but often associated with eruption disturbances. An interesting case of unusually large complex odontoma that was associated with pain and an impacted tooth is reported here.

INTRODUCTION

The term odontoma (or odontome) firstly described by Paul Broca in 1867 was originally used as a general descriptive for any tumor (in its broadest sense) of odontogenic origin. However, owing to their composition and behavior, odontomas have become known as hamartomatous lesions or malformations rather than true neoplasms; the epithelial and the ectomesenchymal tissues along with their respective cells may appear normal, but they seem to have a deficit in the structural arrangement [1, 2]. On the basis of gross, radiographic, and microscopic features, two types of odontoma are recognized: the compound and the complex [3]. The compound odontome has all the dental tissues represented in a more orderly fashion, so that the lesion consists of many small tooth like structures each having enamel, dentin, cementum and pulp arranged as in a normal tooth. The odontoma, complex type (ODCx) is a hamartomatous lesion in which all the dental tissues are represented, individual hard tissues being mainly well formed but occurring in a more or less disorderly pattern [2].

Corresponding Author

Aanshika Tiwari
Email: - aanshikatiwari03@gmail.com

Literature review: The ODCxs are slow growing, expanding lesions that are usually detected in the second decade of life [1, 2]. The lesions are invariably asymptomatic and are usually discovered on routine radiographic examinations. Most of the odontomas are associated with pathologic changes such as malformation, impaction, delayed eruption, malpositioning, cyst formation or displacement and resorption of adjacent teeth, but only rarely are they seen to be associated with the absence of one or more contiguous teeth [1, 4]. Both kinds of odontomas are generally present with in the jaw bones with only eight cases reported as peripheral developing odontomas [5]. Some are reported to be found in the maxillary sinus, or subcondylar regions [6]. In extremely rare instances they may seem to erupt into the oral cavity [3, 7–9]. One such unusual case of erupting ODCx associated with pain is reported and discussed.

Case report: A male patient reported to the Dept. of Oral medicine & Radiology, Career Post Graduate Institute of Dental Sciences, Lucknow with a chief complaint of pain in left lower back tooth region since 03 months and swelling in the same region of jaw since 01 week.

History of present illness revealed that the patient was asymptomatic 03 months back. Afterwards he noticed pain in left lower back tooth region during mastication. Initially the pain was mild to moderate which gradually increased towards severity. Then the patient went to

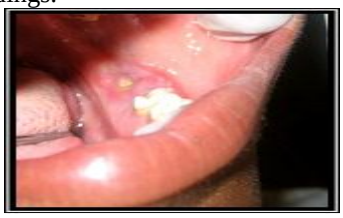
nearby private clinic for treatment for the same and took medication and pain got relived. But after 02 months, he again felt pain in the same region followed by swelling in the same. There was no history of discharge or any other symptoms.

Extra oral examination revealed gross asymmetry due to swelling on left lower 1/3rd region of the face. No abnormality was detected in TMJ or Muscles of mastication: But left submandibular lymph nodes were palpable and mildly non-tender.

Examination of extra oral swelling: A Solitary ill-defined swelling was present in the left lower third of the face measuring approximately 4x5 cm in size. It extended mesio-lateral from left parasymphysis region to angle of the mandible and superior-inferiorly 1.5 cm below from ala-tragus line to 1.5 cm below inferior border of the mandible. Size was approximate 2.x2.0 cm slightly oval in shaped with diffused border.

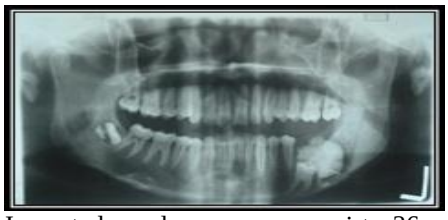
Overlying skin was normal with no history of any kind of discharge or pulsation. All inspectory findings confirmed that the swelling was non-tender, bony hard and no local temperature raised, non fluctuated, margins were well defined & surface was smooth.

Examination of intra oral swelling: On inspection a solitary swelling present in left mandibular region irt 36 and 37 involving lingual and buccal vestibule with exposure of alveolar bone. Size was approximately 2.5x2.0 cm and roughly oval in shape. Extended mesio-distally from distal aspect of 35 to 1.5 cm in front of the retro-molar region with small multiple growths around exposed alveolar bone overlying mucosa inflamed and no any other findings.



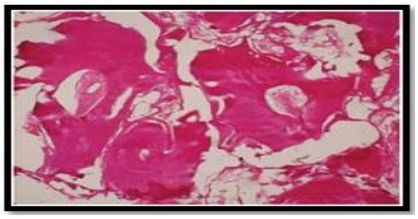
All inspectory findings confirmed, mild tender, bony hard in consistent, non-mobile, non-fluctuant and compressible. Hence a provisional diagnosis of infected dentigerouss cyst irt 37 was made. The differential diagnosis of Odontogenic keratocycst, Ameloblastoma or Odontome was also considered. Investigations carried were OPG, blood tests, complete hemogram, tridot, HbsAg etc. FNAC was also performed. FNAC revealed no fluid material so the sample tested was negative.

Radiographic interpretation: OPG showed Calcified lesion present irt 37 with irregular radiolucent borders, the session was largely radio-opaque with irregular mass or calcified tissue; radiopacity exceeded that of adjacent tooth structures.



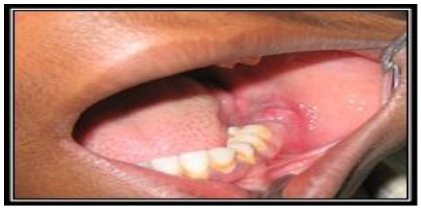
Impacted molar was seen irt 36 with no displacement of adjacent teeth. Tridot test & HBs Ag were also non reactive.

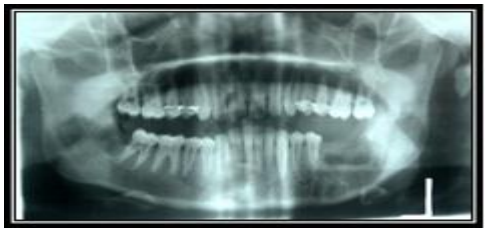
Histopathology: Showed an irregular arrangement of dental tissues such as enamel, dentin and cementum, together with odontoblastic cells in pulp tissue, suggestive of complex odontome. Epithelial rests with intercellular pigmentation resembled melanin.

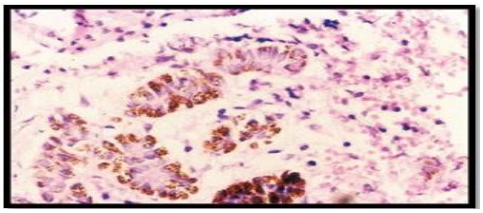


Diagnosis: Hence the histological section confirmed the diagnosis as of Complex Odontome. Surgical excision was carried out for the lesion.

Post-operative follow was done after 01 month.







STATEMENT OF HUMAN AND ANIMAL RIGHTS

All procedures performed in human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

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CONFLICT OF INTEREST: Nil

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