



MASSIVE DENTIGEROUS CYST INVOLVING THE ENTIRE RIGHT MAXILLA - A CASE REPORT

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ABSTRACT The Dentigerous cysts are odontogenic cysts which originates from reduced enamel epithelium in an unerupted tooth or it encloses the crown of an unerupted or impacted tooth at cemento enamel junction, it is estimated to about 20% of all epithelium lined cysts and 2nd most common odontogenic cyst after radicular cyst. Here is a case report of dentigerous cyst of right maxilla which has been discussed below.

KEYWORDS : Dentigerous Cyst, Maxillary Canine, Supernumerary Teeth.

INTRODUCTION:

Dentigerous cysts are associated with impacted tooth among which mandibular molars and maxillary canine region are more frequently affected, it affects both the genders equally and higher prevalence in whites than blacks. The premaxilla is the most common site to have supernumerary teeth.⁽¹⁾ The age range varies widely from 5 years to 57 years.⁽²⁾ These cysts can grow to very large size and can cause displacement of teeth or in few cases it may remain relatively small.⁽³⁾ Many dentigerous cysts are small asymptomatic lesions that are discovered on routine radiographs, although some may grow to considerable size causing bony expansion that is usually painless until secondary infection occurs.⁽³⁾ Here is a case with swelling of right maxilla which has been discussed below.

CASE REPORT:

A male patient aged 46 years reported with chief complaint of swelling in his right middle third of his face (Figure-1), no associated pain with respect to the swelling. Patient gives history of betel nut chewing since 30 years. On extra oral examination, Diffuse swelling noted over right malar region of face with obliteration of right nasolabial fold. On intraoral examination, vestibular obliteration noted extending from 12 to 17. On intraoral hard tissue inspection, missing 13 was noted. On palpation, the swelling is firm to hard in consistency and is non tender. Orthopantomogram (Figure-7 pre op) reveals a wide unilocular radiolucency right maxillary sinus. extending from periapical region of 14 to 17 with two distinct radio-opacities suggestive of impacted right maxillary canine and supernumerary teeth. Computed tomography reveals a large cystic lesion seen in the inferior wall of right maxilla, the cyst has thin bony wall displacing maxillary sinus. The cyst invaded the right orbital floor medially bulging into right nasal cavity (figure 2).



Fig 1- Extraoral Bird S Eye View

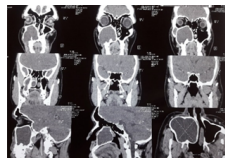


Fig 2: Ct (coronal View)

TREATMENT DONE :

Under local anesthesia, fine needle aspiration cytology was done using 18 gauge needle, straw colored fluid obtained and proceeded with incisional biopsy. Tissue obtained was sent for histopathological examination. The report suggested of dentigerous cyst, Root canal treatment was done from 14 to 17. Under general anesthesia the dentigerous cyst was enucleated using curettes and surgical removal of permanent canine and supernumerary teeth done and apicectomy followed by retrograde filling done from 14 to 17 and wound closure achieved using 3-0 vicryl. The enucleated specimen measuring 5x5x1 cm, greyish brown in colour with attached bony piece was sent for histopathological examination which revealed fibrous wall with focal myxoid changes and lined by stratified cuboidal non keratinizing epithelium suggestive of features of dentigerous cyst. Suture removal was done after 14 days, Post operative wound healing was satisfactory.



Fig 3- Exposure Of The Lesion



Fig 4- Cystic Cavity

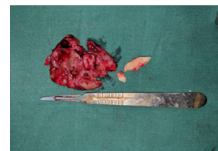


Fig 5- Excised Specimen

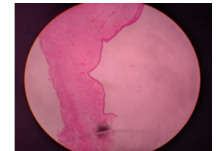


Fig 6- Histopathological Picture



Fig 7- Orthopantomogram (pre-operative And Post-operative)

DISCUSSION:

A Dentigerous cyst can be defined as a cyst that encloses the crown of an unerupted tooth, expands the follicle, and is attached to the cemento-enamel junction of the unerupted tooth⁽⁴⁾. The term dentigerous, the literal meaning being “tooth bearing.”⁽⁵⁾ Dentigerous cyst associated with supernumerary teeth is a rare entity. Dentigerous cyst with supernumerary teeth constitute of about 5-6% of dentigerous cyst, the majority of cases are associated with 90% of maxillary mesiodens, most of the supernumerary teeth are found in pre maxilla⁽⁶⁾. Dentigerous cyst is associated with an unerupted tooth. In order of its frequency, they are associated with mandibular third molars, maxillary canines, mandibular second premolars and maxillary third molars⁽⁷⁾. These cysts can grow to very large size and can cause displacement of teeth or in few cases it may remain relatively small.⁽⁷⁾ Three types of dentigerous cyst have been described radiographically: The central variety, in which the radiolucency surrounds just the crown of the tooth, with the crown projecting into the cyst lumen. In the lateral variety, the cyst develops laterally along the tooth root and partially surrounds the crown, the circumferential variant exists when the cyst surrounds the crown but also extends down along the root surface as if the entire tooth is located within the cyst⁽³⁾. According to the pathogenesis, a dentigerous cyst can be of two types: The first is developmental in origin and occurs in mature teeth, usually as a result of impaction. The second type is inflammatory in origin, and occurs in immature teeth, as a result of inflammation from a non-vital deciduous tooth follicle.⁽⁸⁾ It has been suggested that a dentigerous cyst may develop by fluid accumulation either between the reduced enamel epithelium and the enamel, or alternatively, between individual layers of the reduced enamel epithelium. This fluid accumulation occurs as a result of the pressure exerted by an erupting tooth on an impacted follicle, which obstructs the venous outflow, and thereby, induces rapid transudation of the serum across the capillary wall⁽⁹⁾. Toller has stated that the likely origin of the dentigerous cyst is the breakdown of proliferating cells of the follicle, after impeded eruption.⁽¹⁰⁾ These breakdown products result in increased osmotic tension, and hence, cyst formation.

CONCLUSION:

The prognosis of dentigerous cyst is good, recurrence of dentigerous cyst is rare and follow up done for 3yrs

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