

DENTIGEROUS CYST AS MID PALATAL SWELLING: A CASE REPORT¹Yadav N.S²Manika Singh¹Director and Professor.²Post graduate student

^{1,2} Department of Oral Medicine and Radiology, People's College of Dental Sciences and Research Centre, Bhopal-462037, Madhya Pradesh

ABSTRACT

Dentigerous cyst is a developmental odontogenic cyst which originates through alterations of the reduced enamel epithelium in an unerupted tooth after the crown has been fully formed. Dentigerous cysts associated with supernumerary teeth are rare and constitute 5–6% of all dentigerous cysts. Supernumerary teeth should be examined very carefully to prevent possible effects on adjacent regular teeth and possible cystic development. We report a rare case of mid palatal swelling due to a dentigerous cyst associated with an impacted supernumerary in an elderly patient.

KEY WORDS: *Dentigerous Cyst, Supernumerary Tooth, Mid palatal swelling*

INTRODUCTION

Dentigerous cyst is a developmental odontogenic cyst which originates through alterations of the reduced enamel epithelium in an unerupted tooth after the crown has been fully formed. About 95% of dentigerous cysts involve the permanent dentition. Dentigerous cysts around supernumerary teeth account for 5% of all dentigerous cysts, most developing around a mesiodens in the anterior maxilla and palate¹.

Supernumerary teeth are present in 0.8% of primary dentitions and in 2.1% of permanent dentitions. One of the rare problems associated with supernumerary teeth is the formation of dentigerous cyst². The usual age of clinical presentation of dentigerous cyst due to supernumerary tooth is in the first 4 decades. The highest incidence of dentigerous cysts occurs during the second and third decades (Shear, 1992).

Dentigerous cysts are usually associated with unerupted teeth of the permanent dentition. When observed with erupted and complete dentition the diagnosis is a surprise. We report a rare case of mid palatal swelling due to a dentigerous cyst associated with an Impacted supernumerary teeth in an adult.

Case report

A 26 year old male, reported with a chief complaint of swelling in the palate since 6 months. The swelling which was initially about the size of a peanut gradually increased to attain the present size. There was no history of trauma and it was not associated with any pain, just a local discomfort.

A solitary oval shape swelling was present in the center of palate measuring 2.5cm in diameter which was pink in color with bluish hue and margins were well defined (Fig 1). On palpation swelling was firm in consistency except in center where a hard mass was palpable, it did not blanch on pressure and was fixed to underlying bone. A provisional diagnosis of mid palatine cyst was made. The differential diagnosis included neurofibroma, maxillary tori, tumor arising from minor salivary gland and dentigerous cyst arising from supernumerary teeth.

Vitality test was done for all the maxillary teeth with electric pulp tester which did not elicit any abnormal response. An occlusal radiograph was taken which showed a well defined pericoronal unilocular radiolucency which was surrounding a radiopaque mass resembling supernumerary tooth (Fig 2). The radiographic diagnosis of dentigerous

cyst arising from supernumerary tooth was made. An aspiration of the lesion yielded an amber colour aspirate.

The patient was operated under local anesthesia and enucleation was done (Fig 3).

Histopathological examination of the enucleated specimen revealed an Odontogenic cystic lining which confirmed the diagnosis of a dentigerous cyst (Fig 4).



Fig.1: Swelling in mid palate

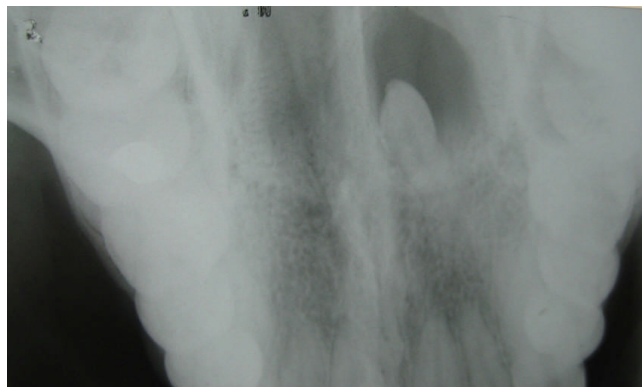


Fig.2.Pericoronal radiolucency in mid palatal region

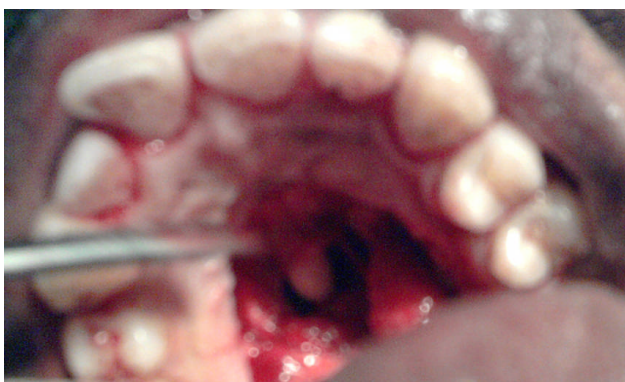


Fig.3. Enucleation of the cyst

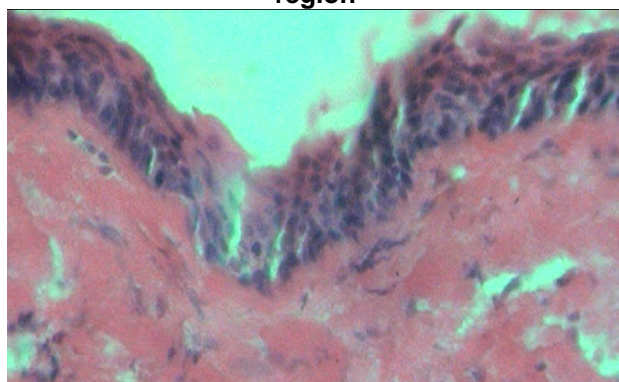


Fig.4. Photomicrograph showing epithelial lining

Discussion

Next to the radicular cyst, the dentigerous cyst is the second most common type of odontogenic cyst and is always associated with the crown of an impacted, embedded, or otherwise unerupted tooth³. A cystic swelling of the hard palate may be the result of different kinds of cysts: Odontogenic, Non Odontogenic or Bone cysts. Dentigerous cyst is associated with mesiodens usually located in anterior maxilla or palate but in this case it was caused by a maxillary impacted supernumerary tooth, leading to the swelling in the mid palatal region. Hence it should be carefully differentiated from other mid palatal swellings.

Radiographic appearance of dentigerous cyst is that of a well-defined pericoronal radiolucent

lesion, which may be unilocular or multilocular in appearance⁴. In addition to its potential for bone destruction and because of the multipotential nature of this epithelium derived from the dental lamina, several entities may arise in or be associated with the wall of a dentigerous cyst.

Treatment of dentigerous cyst depends on size, location, disfigurement & often requires variable bone removal to ensure total removal of the cyst, especially in cases of large ones⁵. Thus treatment for dentigerous cysts is surgical removal⁶. Because of the potential for occurrence of an odontogenic keratocyst or the development of an ameloblastoma⁷ or mucoepidermoid carcinoma, all

such lesions, when removed, should be submitted for histopathologic evaluation.

CONCLUSION

A rare case of dentigerous cyst arising from impacted supernumerary tooth and presenting as a midpalatal swelling was described. It should be carefully distinguished from other mid palatal swellings.

References

1. Von Arx T: *Anterior maxillary supernumerary teeth- A clinical and radiographic study*; *Australian Dental Journal* 1992; 37(3): 189-195.
2. Lustmann J, Bodner L: *Dentigerous cysts associated with supernumerary teeth*; *Int J Oral Maxillofac Surg* 1988; 17:100 - 102.
3. Regezi JA, Sciubba JJ. *Oral Pathology: Clinical-Pathologic Correlations*. Philadelphia:Saunders,1989; p 306.
4. Asami JI, Shibata Y, Yanagi Y, et al: *Radiographic examination of mesiodens and their associated complications*; *Dentomaxillofacial Radiology* 2004; 33(2): 125-127.
5. Primosch RE: *Anterior supernumerary teeth: assessment and surgical intervention in children*; *Pediatric Dentistry* 1981; 3: 204-21.
6. Kessler HP, Kraut RA: *Dentigerous cyst associated with an impacted mesiodens*; *General Dentistry* 1989; 37(1):47-49.
7. Gardner DG, Corio RL: *Plexiform unicystic ameloblastoma - A variant of ameloblastoma with a low recurrence rate after enucleation*. *Cancer* 1984; 53(8): 1730-1735.

Corresponding Author

Dr NS YADAV

Director and professor
Department of Oral Medicine
People's College of Dental Sciences and
Research Centre, Bhopal-462037,
Madhya Pradesh
Ph. No;917554005342
E-mail; nsyadavdr@gmail.com