

DENTIGEROUS CYST OF ANTERIOR PALATE: A CASE REPORT

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ABSTRACT

Dentigerous cyst is the most frequently encountered odontogenic cyst which is lined by epithelial. Most commonly it occurs in young males below 30 years of age. Developmental DCs typically occur in mature teeth, usually as a result of impaction, and predominantly involve the mandibular third molars. The present case describes the dentigerous cyst involving left maxillary impacted canine.

Keywords:Dentigerous Cyst, Palate, Impacted,Canine, Deveplomental.

INTRODUCTION:

Dentigerous cyst are most frequently encountered and are second most common odontogenic cyst after radicular cyst. The WHO classified it as epithelial developmental odontogenic jaw cyst.¹ It represents nearly 20-24% of all epithelium lined jaw cyst and commonly occurs in second and third decades of life.^{1,2}

Dentigerous cyst usually associated with an crown of the unerupted, supernumary, impacted permanent tooth or developing tooth bud and encloses the crown at cement-enamel junction. It develops around the crown of an unerupted tooth by expansion of follicle when fluid collects or a space occurs between the reduced enamel epithelium and the enamel of an impacted tooth.³ Majority of them are associated with impacted mandibular third molars followed by maxillary permanent canines, mandibular premolars, maxillary

third molars and rarely maxillary right canine. The cyst are often painless and asymptomatic unless secondary infection occur and usually discovered on routine radiographic examination.^{4,5} Delayed eruption, swelling, tooth displacement, retained deciduous teeth, missing permanent teeth, pathological fracture of bone deformation is associated complication.⁶

CASE REPORT:

A 14 year old boy reported with the chief complaint of swelling over left side of anterior palate with past 3 month which gradually increased to attain its present size . Intraoral examination revealed painless expansion of palatal cotical plates of alveolar ridge at the region of teeth 21,22,63,64. Swelling extending from 21 to 64 antero-posteriorly and from palatal gingival to midline mesio-distally. Swelling was slightly oval in shape and

overlying mucosa was normal in color [Fig.1]. On palpation it was non-tender to touch. No pulsation and sinus or pus discharge was present. There was carious maxillary left deciduous second molar with mixed dentition. The patient was subjected for investigations IOPA wrt 22.63, 64; OPG and occlusal view which shows radiolucency around left impacted canine [Fig.2]. On aspiration straw color fluid with blood tinged were found [Fig.3]. A provisional diagnosis of dentigerous cyst was rendered.

The cyst was enucleated along with extraction of deciduous second molar and was submitted for histopathological examination which confirmed the diagnosis of dentigerous cyst.

DISCUSSION:

The dentigerous cyst is the most frequently occurring developmental odontogenic cyst. It occurs due to accumulation of fluid between the reduced enamel epithelium (REE) and the tooth enamel. Toller_ stated that dentigerous cyst may be originate due to breakdown of proliferating cells of the follicle after impeded eruption. As a result there is increased osmotic tension and hence cyst formation occurs. These cysts usually occur in the late second and third decades, predominantly involve mandibular third molars and are discovered on routine radiography .⁷ The another type is inflammatory origin which occurs in immature teeth. An inflammation from a non-vital deciduous tooth is the reason. Bloch suggested that the overlying necrotic deciduous tooth is the cause of origin. The periapical inflammation will spread to involve the follicle of an unerupted permanent successor; inflammatory exudates ensue resulting

dentigerous cyst formation.⁸ These cysts are diagnosed in the first and early part of the second decade either on routine radiographic examination or when the patient complains of swelling or pain.⁹

Though, it may occur at any age but mostly affects patients in second and third decade. Recently a case of young male of one year of age is being reported with dentigerous cyst associated with permanent mandibular first molar . Males affected more than females varying from 1.6-1.8:1 ¹⁰⁻¹². In present case the patient was male and was in early second decade.

A vast majority of the cyst are associated with mandibular third molar followed by maxillary permanent canine and maxillary third molar. Cyst also have been reported wrt primary teeth ². In this case the dentigerous cyst was associated with permanent maxillary canine . Atlas et al reported a case of a large maxillary cyst involving the whole sinus and producing epiphora¹³. Dentigerous cyst is usually presents as asymptomatic, painless expansion of bone until encountered during routine radiograph, in present case also there was painless swelling.

According to American Academy of Pediatric Dentistry, the first panoramic radiographic examination should be performed following the eruption of the first permanent tooth. To detect any associated pathology at an early stage, radiographic examination of all unerupted teeth must be done.^{2,14} In present case the cyst was diagnosed due to clinical swelling.

Management of dentigerous cyst include enucleation of the cyst or marsupialization depending on its size and location. In case

of children the treatment of choice should be conservative. Although marsupialization provide chance to unerupted tooth to erupt , the main disadvantage is that pathological tissue is left *in situ*.^{15,16,17} In present case cyst was enucleated with extraction of 64. To avoid recurrence complete removal of cyst is important. An ameloblastoma, squamous cell carcinoma and mucoepidermoid carcinoma can cause from long-standing cyst or its remnants⁹.

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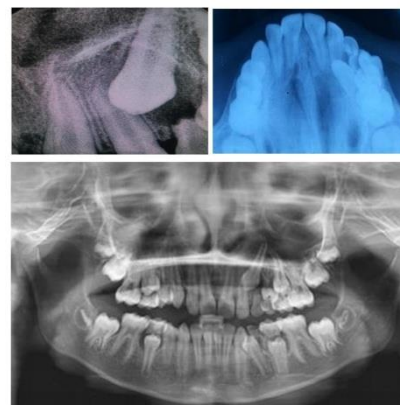


Fig.2.IOPA, OCCLUSAL & OPG view showing radiolucency around the left impacted canine



Fig.3. FNAC showing straw coloured fluid



Fig.4. Intra-operative picture showing enucleation alongwith preservation of left maxillary permanent canine.

FIGURES:



Fig.1. Clinical picture showing left sided anterior palatal swelling. Alveolar ridge expansion at the palate.