

DENTIGEROUS CYST AROUND A HORIZONTALLY PLACED MAXILLARY CENTRALS IN PAEDIATRIC PATIENT - RARE FINDING CASE REPORT AND REVIEW

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ABSTRACT

Dentigerous cysts are the most common developmental odontogenic cysts of the jaw, arising from impacted, embedded or unerupted permanent teeth. supernumerary teeth are the main cause of impaction of upper incisors. Supernumerary teeth when present can cause both esthetic and pathologic problems. A dentigerous cyst associated with an anterior tooth will result in failure or eruption of the tooth and therefore lead to esthetic and orthodontic problems. Here we present a pediatric case retained supernumerary tooth lead to horizontally impacted permanent incisors and cyst ensiling it.

Key words:

Dentigerous cysts, horizontally impacted permanent incisors, pediatric case

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INTRODUCTION

Dentigerous cysts are the most common developmental odontogenic cysts of the jaw, arising from impacted, embedded or unerupted permanent teeth. Maxillary permanent incisors impaction is not a frequent case in dental practice, but its treatment is challenging because of its importance to facial esthetics.¹ Supernumerary teeth are the main cause of impaction of upper incisors. Supernumerary teeth when present can cause both esthetic and pathologic problems.² Early detection of such teeth is most important if complications are to be avoided. Here we present a pediatric case retained supernumerary tooth lead to horizontally impacted permanent incisors and cyst ensiling it.

CASE REPORT

A 10 years old female patient referred from department of pedodontics with a chief complaint of pain in the upper front tooth region that was present since past 1 month gave history of pain that was sudden in onset, aggravated on eating food and relived on having medication. on general examination ,vitals are stable, moderate built and nourished. on extra oral examination facial symmetry noted, mouth opening satisfactory. On intra oral examination vestibular tenderness noted was noted with respect to 21 with no obliteration. occlusion was maintained ,TMJ movement are normal (figure 1), CBCT was advised which reveals a well defined lesion measuring approximately 2-3cm in size. Impacted 21, Dentigerous cyst in relation to 21, Retained 61 (figure 2).



Figure 1 pre operative picture

Lateral incisor was associated with the lining of the cyst and tooth was displaced. After a thorough clinical examination a provisional diagnosis of dentigerous cyst was made .Prior to surgery routine blood were done and verified within normal limits. surgical enucleation of the cyst along wit removal of impacted incisor and extraction off supernumerary tooth was planned as the treatment of choice. Two releasing incision placed one distal to lateral incisors, creviclar incision placed and mucoperiosteal flap raised, supernumerary tooth removed and impacted 21 tooth exposed (figure 4) and extraction

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carried along with cyst removal which was attached to the cemento-enamel junction of 21 tooth. The specimen was sent for histopathological examination (figure 5). The histological examination showed a thin fibrous cystic wall lined by a 2 to 3 layer thick nonkeratinized stratified squamous epithelium with islands of odontogenic epithelium.

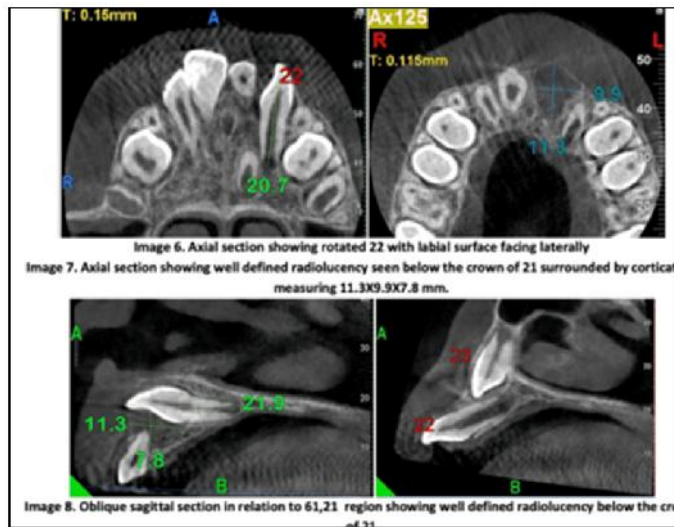


Figure 2 CBCT IMAGE

The connective tissue showed a slight inflammatory cell infiltrate, which confirmed the diagnosis of dentigerous cyst. Following enucleation of the cyst, the patient was recalled after 1 week for suture removal. Movement of lateral incisors noted after 1 month of follow up which aids in orthodontic movements (figure 6).



Figure 3 Tooth Exposed

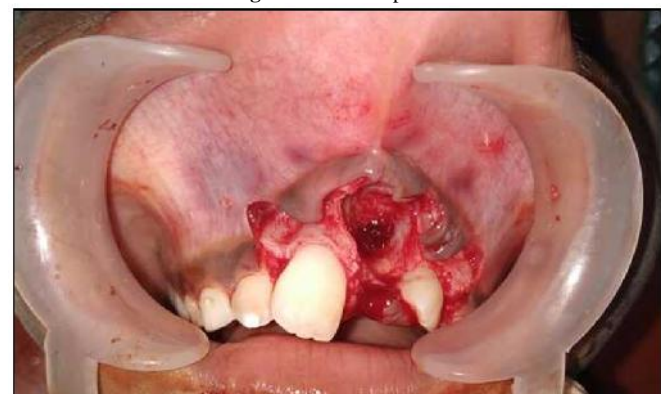


Figure 4 socket after cyst enucleation



Figure 5 Extracted Tooth And Excised Cyst



Figure 6 Post Operative One Month Follow Up

DISCUSSION

Dentigerous cysts are the most common of the developmental odontogenic cysts of the jaws and account for the approximately 20 % of all the epithelium lined jaw cysts. Usually seen in teenagers/ young adults, although occur over a wide age range³. More common in male subjects, occur most common in the 2nd and 3rd decades of life and to be most often associated with impacted mandibular 3rd Molar and maxillary cuspids.

It develops around the crown of an unerupted tooth by expansion of the follicle when fluid accumulates or a space occurs between the reduced enamel epithelium and the enamel of impacted tooth.⁴ These cysts are often asymptomatic unless there is an acute inflammatory exacerbation and therefore these lesions are usually diagnosed during routine radiograph taken for unrelated reasons for imaging to investigate delayed tooth eruption. These cysts can grow large enough to produce a painless bony expansion, can displace the involved tooth, cause resorption of adjacent teeth. If secondarily infected, may be associated with pain.

Younger patients with unerupted or impacted teeth, have more predilections for dentigerous cysts.⁷ Their early recognition and treatment is imperative to prevent further proliferation leading to osseous deformities and gross destruction. Dentigerous cysts appear to have a greater tendency to cause root resorption of adjacent teeth compared to radicular cysts or odontogenic keratocysts.⁸ Cysts developing in the growing child will enlarge much more rapidly than in the adult, and lesions 40 to 50 mm

in diameter can develop in a 3- to 4-year period, although patients may only give a history of a slowly enlarging swelling.⁹In an infected cyst, the borders may be ill-defined. There may be difficulty distinguishing a small cyst from a normal tooth follicle has been suggested that any follicular space of >4 mm should prompt a strong suspicion for a dentigerous cyst.

This proposes the existence of two types of dentigerous cysts, one developmental and the other inflammatory in nature.

Treatment of dentigerous cyst depends on size, location and disfigurement; often requires variable bone removal to ensure total removal of the cyst, especially in case of large ones. If the size of cyst is small, it can be enucleated, but marsupialization may be needed for the complete removal of a large cyst. 10

A dentigerous cyst associated with an anterior tooth will result in failure or eruption of the tooth and therefore lead to esthetic and orthodontic problems. Absence of a lateral incisor can have an impact on the psychology of child.

CONCLUSION

In our case, considering child age and condition we suggested to remove the permeant tooth which was impacted and for further aesthetic management orthodontic correction are advised, clinician should consider appropriate behaviour management and delicate balance between eruption of tooth, long follow up and proper treatment advised .

Reference

1. Zakirulla M, Yavagal CM, Jayashankar DN, Meer A. Dentigerous Cyst in Children: A Case Report and Outline of Clinical Management for Pediatric and General Dentists. *J Orofac Res* 2012; 2(4):238-242.
2. Altini M, Cohen MJ. Experimental extra-follicular histogenesis of follicular cysts. *J Oral Pathol* 1987; 16:49-52.

3. Bhat S. Radicular cyst associated with endodontically treated deciduous tooth: A case report. *J Indian Soc Pedo Prev Dent* 2001;19:21-23.
4. Kusakawa J, Irie K, Morimatsu M, Koyanagi S, Kameyama T. Dentigerous cyst associated with a deciduous tooth. *Oral Surg Oral Med Oral Pathol* 1992;73:415-18.
5. Hasbini AS, Hadi U, Ghafari J. Endoscopic removal of an ectopic third molar obstructing the osteomeatal complex. *Ear Nose Throat J* 2001;80:667-70.
6. Bodner L, Woldenberg Y, Bar-Ziv J. Radiographic features of large cysts lesions of the jaws in children. *Pediatr Radiol* 2003;33:3-6.
7. Kusakawa J, Irie K, Morimatsu M, Koyanagi S, Kameyama T. Dentigerous cyst associated with a deciduous tooth. *Oral Surg Oral Med Oral Pathol* 1992;73:415-18.
8. Shear M. Dentigerous (follicular) cyst. In: Wright (ed). *Cysts of the oral regions* (3rd ed). Oxford: Pergamon Press 1992:75-98. 13. Seward G. Treatment of cysts. In: Shear M (Ed). *Cysts of the oral regions* (3rd ed). Oxford: Wright 1992:227-56.
9. Seward G. Radiology in general dental practice. London: British Dental Association 1964:154-61.
10. Most DS, Roy EP. A large dentigerous cyst associated with a supernumerary tooth. *J Oral Maxillofac Surg* 1982; 40:119-20.

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