

Eruption Cyst in an Adult- a case report

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Abstract

An eruption cyst (EC) is a benign, developmental odontogenic cyst associated with a primary or permanent tooth. They resolve by itself but if they are infected they may require surgical treatment to expose the tooth and drain its contents. A case of eruption cyst in a 13-year-old female with chief complaint of missing tooth in left maxilla. Treatment done was incision and drainage.

Keywords: Diagnosis, eruption cyst, adult, treatment.

INTRODUCTION

An eruption cyst (EC) is defined as a benign, developmental odontogenic cyst that usually found in association with an erupting primary or permanent tooth¹. They were classified as a dentigerous cyst (DC) earlier but according to the WHO's classification of odontogenic tumors, the EC is a separate entity; a form of dentigerous cyst lying in the soft tissues without any bone involvement². Early caries, trauma, infection, lack of space for eruption and genetic predisposition are considered to be the etiological factors however, the exact etiology is unknown³⁻⁵.

EC can be seen clinically as a soft, translucent, dome-shaped lesion filled with blood or a clear fluid overlying the crown of an erupting tooth⁶. It can be singular or multiple, unilateral or bilateral form normally seen during first decade of life⁷.

Various individual case studies have been reported on ECs.^{1,5,6,8-12} So there is a lack of common knowledge about their diagnosis and treatment procedure.

Report of Case

A 13-year-old female presented with a 1-cm diameter gingival swelling over the left maxillary area of several month's duration. There was no previous facial trauma or contributory medical history. Physical examination showed a soft, smooth, mucosal swelling with a bluish hue over the clinically missing left maxillary canine (Fig. 1). An IOPA (Fig. 2), showed that the maxillary canine was impacted and the crown of the impacted left maxillary canine to be in close proximity with the clinical mucosal swelling. It also suggested bone loss around the impacted left canine

which turned out to be not so at surgery. A tentative diagnosis of eruption cyst was made and the patient was scheduled for surgical removal of impacted canine and enucleation of the soft tissue mass. At surgery, a small cyst was identified lying entirely in soft tissue between the labial surface of the impacted tooth and the epithelial mucosa (Fig. 3). It was completely enucleated and submitted for histological examination. Postoperative recovery was uneventful. Microscopic examination of the soft tissue mass specimen confirmed the diagnosis of eruption cyst.

DISCUSSION

EC's origin is controversial. Some relate the origin to degenerative cystic changes in the reduced enamel epithelium following completion of amelogenesis, while others suggest that the cyst develops from the epithelial remnants of the dental lamina overlying the erupting tooth^{4,8}. The pathogenesis of eruption cyst and dentigerous cyst are probably similar. The only difference is that the tooth in the case of eruption cyst is enclosed in the soft tissues of the gingiva rather than in the bone.

The factors which actually impede eruption in the soft tissues are unclear, but the presence of particularly dense fibrous tissue could be reason. As there is no bone involvement⁷, EC is not detectable on radiographic examination, unlike other odontogenic cysts where radiograph is necessary for diagnosis³. Even so, radiography is highly recommended for evaluation of the morphology of the involved tooth and its surrounding jaw bone. The treatment approach has to be case specific. The treatments can be either no treatment and follow up, marsupialisation or surgical extraction. Histopathological examination in estab-

Fig. 1



Fig. 2

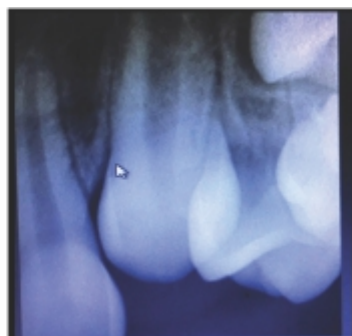


Fig. 3



lishing the final diagnosis is not essential, however, microscopic examination of soft tissue specimen is essential to prevent any possible misdiagnosis, such as hemangioma, melanoma or unicystic ameloblastoma⁵.

CONCLUSION

Disturbances of the dental development may result in anomalies which mostly occurs in the form of swelling of the overlying mucosa of the erupting deciduous or permanent teeth. This occurs most commonly in children. Eruption cyst is lesion associated with erupting teeth, in many cases due to its size or peculiar shape, purple-blue or bluish black color may result in tumor scare among the patients or their guardians. For its appropriate treatment knowledge among clinicians is very essential regarding this clinical entity.

REFERENCES

1. Nagaveni NB, Umashankara KV, Radhika NB, Satisha TM. Eruption cyst: A literature review and four case reports. *Indian J Dent Res.* 2011;22:148.
2. Kramer IR, Pindborg JJ, Shear M. The WHO Histological Typing of Odontogenic Tumours. A commentary on the Second Edition. *Cancer.* 1992;70:2988-94.
3. Aguilo L, Cibrian R, Bagan JV, Gandia JL. Eruption cysts: Retrospective clinical study of 36 cases. *J Dent Child.* 1998;65:102-6.
4. Kuczek A, Beikler T, Herbst H, Flemmig TF. Eruption cyst formation associated with cyclosporin A. *J Clin Periodontol.* 2003;30:462-6.
5. Dhawan P, Kochhar GK, Chachra S, Advani S. Eruption cysts: A series of two cases. *Dent Res J (Isfahan)* 2012;9:647-50.
6. Clinical Affairs Committee, American Academy of Pediatric Dentistry. Guideline on Management Considerations for Pediatric Oral Surgery and Oral Pathology. *Pediatr Dent.* 2015;37:85-94.
7. Seward MH. Eruption cyst: an analysis of its clinical features. *J Oral Surg.* 1973;31:31-5.
8. Alemán Navas RM, Martínez Mendoza MG, Leonardo MR, Silva RABD, Herrera HW, Herrera HP. Congenital eruption cyst: a case report. *Braz Dent J.* 2010;21:259-62.
- Gaddehosur CD, Gopal S, Seelinere PT, Nimbeni BS. Bilateral eruption cysts associated with primary molars in both the jaws. *BMJ Case Rep.* 2014;2014
10. Woldenberg Y, Goldstein J, Bodner L. Eruption cyst in the adult a case report. *Int J Oral Maxillofac Surg.* 2004;33:804-5.
11. Ricci HA, Parisotto TM, Aparecida Giro EM, de Souza Costa CA, Hebling J. Eruption cysts in the neonate. *J Clin Pediatr Dent.* 2008;32:243-6.
12. Kimura JS, Wanderley MT, Pinto-Junior DdosS, Zardetto CG. An unusual case of four simultaneous eruption cysts in an infant. *J Dent Child (Chic)* 2014;81:38-41.