



BILATERAL ERUPTION CYST TREATED WITH LASER- CASE REPORT

Nandakumar S¹, Pallavan B², Thiruneervannan R³, Dhivya E.D⁴ and Venkatesh R⁵

¹Department of Pedodontics, Vinayaka Mission Dental College, Pondicherry

^{2,3}Vinayaka Mission's Dental College, Cuddalore Main Road, Kirumampakkam, Puducherry-607403

^{4,5}Pedodontist

ARTICLE INFO

Article History:

Received 12th March, 2018

Received in revised form 10th

April, 2018

Accepted 7th May, 2018

Published online 28th June, 2018

Key words:

Benign cyst, eruption cyst, Swelling,
Deciduous

ABSTRACT

Congenital pathologies are those existing at or dating from birth. Occurrence of congenital cystic lesions in the oral cavity is uncommon in neonates. Eruption cyst (EC) is listed among these unusual lesions. It occurs within the mucosa overlying teeth that are about to erupt and, according to the current World Health Organization (WHO) classification of epithelial cysts of the jaws, EC is a separate entity. This paper presents a case of congenital EC successfully managed by laser

Copyright © 2018 Nandakumar S et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Eruption cysts are benign cysts that appear on the alveolar ridge shortly before the eruption of a tooth.¹ In the past, they were classified as dentigerous cyst but according to the World Health Organization's classification of odontogenic tumours, eruption cyst is a separate entity.²

The exact etiology of occurrence of eruption cyst is not clear. Studies have found early caries, trauma, infection and the deficient space for eruption as possible causative factors.³ Clinically, the lesion appears as a circumscribed, fluctuant swelling on the alveolar ridge over the site of the erupting tooth.⁴ They most commonly occur in the first and second decades of life, usually coinciding with the eruption of the first permanent molars and maxillary incisors.⁵

Case Report

A 15 months old baby along with his parents came to our hospital with a chief complaint of bilateral swellings in upper and lower back tooth region of the jaw for the past 10 days. History of swelling has started as small bulges on all four quadrants, and progressively increased to the present size. Owing to rapid increase in the size of the swellings, the parents had sought treatment with the fright that it might be neoplasm. Also, the child had difficulty in occlusion and mastication. The child was otherwise apparently healthy.

Intraoral examination revealed two bilateral, sessile swellings in the upper and lower gum pads corresponding to first deciduous molar region. The swellings in the upper jaw measured about 2 cm in diameter and those in the lower jaw measured about 1.5 cm in diameter. The mucosa over the swelling in lower right quadrant alone had bluish black discoloration, rest of the swelling was that of normal mucosa. There were no surface ulcerations, pus discharge or bleeding. On palpation, they were soft, fluctuant and non-tender. No pulsations were felt. An orthopantomogram revealed no bony involvement.

A diagnosis of eruption cyst was made based upon the clinical and radiographic findings. Considering the size of the swellings and difficulty in occlusion and mastication, the choice of spontaneous regression of the cyst was neglected.

The procedure was clearly explained to the parents and written consent was obtained. Necessary blood investigations were carried out before the procedure. As the child was too young to co-operate for the procedure, the procedure was done under general anaesthesia. Er, Cr-YSGG laser was used as laser has the advantages of less intra-operative bleeding and lesser post-operative complications. Review was done after a week and the patient was kept under observation to monitor the eruption of the underlying teeth. The patient was reviewed after one week and a normal eruption pattern was observed.

*Corresponding author: Nandakumar S

Department of Pedodontics, Vinayaka Mission Dental College, Pondicherry



Fig 1 Intraoral photograph depicting bilateral sessile swelling in the corresponding deciduous first molar alveolar region involving maxilla and mandible



Fig 2 Post operative intraoral photograph after the excision of cyst with laser exposing the erupting deciduous first molars

DISCUSSION

The eruption cyst is a form of soft tissue benign cyst associated with an erupting primary or permanent teeth and appears shortly before appearance of these teeth in the oral cavity. Clinically, they appear as a dome-shaped swelling in the mucosa of the alveolar ridge, which is soft on palpation. The colour may range from transparent, bluish, and purple to blue-black.⁶

On radiographic examination, it is difficult to distinguish the cystic space of eruption cyst because both the cyst and tooth are directly in the soft tissue of the alveolar crest and no bone involvement is seen in contrast to dentigerous cyst in which a well-defined unilocular radiolucent area is observed in the form of a half moon on the crown of a non-erupted tooth.⁶

The differential diagnosis of an eruption cyst could be dentigerous cyst, hemangioma, pyogenic granuloma and amalgam tattoo.⁷

Mostly, the eruption cysts don't require any treatment and most of them resolve on their own.^{8,9} Surgical intervention is required when they hurt, bleed, are infected, or aesthetic problems arise.^{6,10} Simple incision or partial excision of the overlying tissue to expose the crown and drain the fluid is indicated when the underlying tooth is not erupting or the cyst is enlarging.¹¹ In this case, intervention was done as the swellings interfered the occlusion and mastication.

The use of Er, Cr-YSGG laser for treatment of eruption cysts has been suggested as a novel treatment modality.¹ Compared with conventional scalpel there is mild bleeding and better visibility of working area.¹² when laser cutting is in progress, small blood and lymphatic vessels are sealed due to the generated heat, thereby reducing or eliminating bleeding and oedema. Clinically, during 48 hours post-surgery, this layer becomes hydrated from saliva, swells, and eventually disintegrates to later reveal an early healing bed of new tissue.¹³ Tissue healing followed by laser is better and faster than tissues treated with conventional surgery, with reduction in scar tissue retraction, bleeding, oedema and postoperative pain.¹²

CONCLUSION

Eruption cysts are not so uncommon. Rapid increase in its size not only impedes the child's normal life but also panics the child and parents. Careful examination and diagnosis, reassurance and right treatment option alleviates anxiety and facilitates normal eruption of the underlying teeth.

References

1. Boj JR, Poirier C, Espasa E, Hernandez M, Jacobson B. Eruption cyst treated with a laser powered hydrokinetic system. *J Clin Pediatr Dent* 2006; 30:199-202.
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. Mc Donald RE, Avery DR, Dean JA. 8th ed. St. Louis, Missouri: Mosby, Elsevier; 2004. *Dentistry for child and adolescent*; pp. 160-82.
5. Bodner L, Goldstein J, Sarnat H. Eruption cysts: a clinical report of 24 new cases. *J Clin Pediatr Dent* 2004; 28:183 -186.
6. Anderson RA. Eruption cyst: A retrograde study. *J Dent Child*. 1990;57:124-7
7. Woldenberg Y, Goldstein J, Bodner L. Eruption cyst in the adult a case report. *Int J Oral Maxillofac Surg*. 2004; 33:804-5.
8. Neville BW, Damm DD, Allen CM, Bouquot JE. 3rd ed. Pennsylvania: Saunders, An imprint of Elsevier; 2009. *Oral and Maxillofacial Pathology*; pp. 682-683.
9. Boj JR, Garcia-Godoy F. Multiple eruption cyst: Report of case. *J Dent Child*. 2000; 67:282-4.
10. Bodner L. Cystic lesions of the jaws in children. *Int J Pediatr Otorhinolaryngol*. 2002; 62:25-9.
11. Nagveni NB, Umashankara KV, Radhika NB, MajSatisa TS. Eruption cyst: A literature review and four case reports. *Indian J Dent Res*. 2011; 22:148-51.
12. Pirnat S. Versatility of an 810 nm Diode Laser in Dentistry: An Overview *Journal of Laser and Health Academy*. Vol. 4. 2007.
13. Parkins F. Lasers in pediatric and adolescent dentistry. *Dent Clin North Am* 2000; 44:821-30.

How to cite this article:

Nandakumar S et al (2018) 'Bilateral Eruption Cyst Treated With Laser- Case Report', *International Journal of Current Medical And Pharmaceutical Research*, 04(6), pp. 3418-3419.