

Erupting with an Era: A Case Report

Bhriti Shah^{1*}, Bhavna Dave², Tej Yadav³

^{1,3}Post Graduate student, Department of Pedodontics & Preventive Dentistry, K.M. Shah Dental College, Sumandeep Vidhyapeth, Vadodara, Gujarat, India

²Prof & HOD, Department of Pedodontics & Preventive Dentistry, K.M. Shah Dental College, Sumandeep Vidhyapeth, Vadodara, Gujarat, India

*Corresponding Author:

Name: Dr. Bhriti Shah

Email: drbhriti@gmail.com

Abstract: A soft tissue analogue of the dentigerous cyst is called as eruption cyst, but is considered as a definite clinical entity. The present case of an eruption cyst in a 12-year old male patient describes a single well-demarcated, dome-shaped swelling covering the alveolar ridge in relation with 14, which was bluish-pink in colour with a smooth surface, soft in consistency, fluctuant, and non-tender on palpation. Radiographically, no evidence of bony involvement was seen. These type of cases are clinically significant in that knowledge among general dental practitioners. Therefore the knowledge regarding same is very essential to reach out the correct diagnosis and to provide proper treatment.

Keywords: Benign cyst, eruption hematoma, gingival cyst, simple excision, enucleation, eruption cyst.

INTRODUCTION

Dentigerous cyst which lies in the soft tissues with no bone involvement, one of the type of it is eruption cyst according to world health organization's classification [1].

In case of erupting tooth, dental follicle gets separated from its crown which leads to cyst formation [2]. Prevalence of eruption cyst is more in males than in females, occurs in primary and permanent dentition [3-5]. It can be unilateral or bilateral.

Prevalence of ECs is more in mandible than in maxilla. Eruption cyst is more superficial compared to hematoma and contains less blood in it. So, for diagnosis of eruption cyst radiographic investigation cannot be helpful but bone underlying the cyst can be observed through it [6].

Clinically, the EC is translucent, dome-shaped lesion filled with blood or clear fluid which is soft in consistency and fluctuant overlying the crown of an erupting tooth [7-9].

Minimal literatures are available regarding eruption cyst. Clinical appearance of the cystic lesion is very particular which may burst unexpectedly before any surgical treatment. Thus, histological investigation is not possible [7]. Surgical approach is necessary for infected eruption cyst [3].

Primary approach to reduce the size of the defect can be marsupialization followed by Enucleation and extraction of the involved tooth is the treatment approach for eruption cyst [10].

Marsupialization is the treatment of choice in children since it is associated with underlying permanent tooth [11].

Periapical inflammation might spread to involve the follicle of the permanent successor from a nonvital primary tooth. Dentigerous cyst formation is due to the accumulation of inflammatory exudates [12].

CASE REPORT

A 12-year old boy was reported to the department of paediatric and preventive dentistry, K.M. Shah Dental College and Hospital, Vadodara, Gujarat. The patient's parents reported no history of oral trauma, infection or associated symptoms and he had been in good general health since birth. His father had noticed a painless swelling on maxillary right side since 3 weeks.

History revealed that the lesion was initially small and had gradually increased to its present size. Intra-oral examination revealed a single well-demarcated, dome-shaped swelling covering the alveolar ridge in region of 14 (Fig. 1a), extending from the gingival to the vestibule and anterioposteriorly distal surface of 53 to mesial surface of 55, measuring approximately 1 × 1 cm in diameter (Fig. 1b).

The swelling was bluish-pink in colour with a smooth surface, soft in consistency, fluctuant and non-tender on palpation. Intraoral periapical radiograph (Fig. 2a) and orthopantomogram (Fig. 2b) showed there was no evidence of any bone involvement. Based on the clinico-radiographic features, a provisional diagnosis of an Eruption Cyst was made.



Fig. 1a: Preoperative intra oral photographs showing cystic lesion in relation to 14



Fig. 1b: Showing occlusal view



Fig. 2a: Intraoral periapical radiograph



Fig. 2b: Orthopantomogram



Fig. 3: Postoperative intra oral photograph after curettage of cystic lesion



Fig. 4: After one week of follow up

Investigation

Routine radiographic investigations were carried out to evaluate the cystic margin and tooth associated with it. Intraoral periapical radiograph and orthopantomogram showed there was no evidence of any bone involvement. Fine needle aspiration cytology was done and sent for investigation. The granulation tissue specimen was collected after extraction was sent for histopathologic examination which revealed hemorrhagic areas.

Treatment

Extraction of 54 was done under local anesthesia. Proper irrigation and curettage of the socket was done which was containing granulation tissue (Fig. 3).

Analgesics were prescribed and Follow up after one week was done (Fig. 4).

DISCUSSION

Evidence says dentigerous cyst is common in the late second and third decades and can be of two types [1, 2].

One of the types of dentigerous cyst originates from the nonvital deciduous tooth follicle which takes place in immature teeth as a result of inflammation mainly in immature teeth [1].

The diagnosis of cyst is done by radiographic examination, histopathological investigation and also by the chief complain and clinical examination [3]. Our case was the second type of dentigerous cyst which was seen in second decade of life.

Mostly unilateral lesions are common in case of dentigerous cyst but bilateral and multiple cystic lesions are also been found [4, 5].

Bony involvement of the large cystic lesion has to be treated by marsupialization or decompression. In present case the radiographic investigation showed no bony involvement. Thus, after gaining the cystic fluid sample by doing FNAC. Extraction of involved deciduous tooth and curettage was done [6, 7].

Surgical approach is always suggested in cases of dentigerous cyst. For small lesions enucleation and extraction of the tooth is to be done.

It is advised in children since it does not damage the crown of the permanent teeth underlying the lesion [8].

Mainly in case of eruption cyst radiographs are not helpful since bony involvement is not seen in most of the cases [3].

Most of the cases surgical treatment is not necessary. Amount of root formation in successdaneous tooth has taken place and the symptoms are the important factors to select best approach. Timely diagnosis and right treatment are the two main things in the young children, which will lead to good oral health and better life [9].

During the procedure in children their support while curettage and regular follow up visits are the most important things. The biggest drawback in the non surgical approach is adequate removal of pathologic tissue might not take place which might lead to reoccurrence [10].

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