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## ERUPTION CYST IN A 2 Y.O. PATIENT LOCATED IN THE REGION OF UPPER FIRST DECIDUOUS MOLAR

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**Key words:** eruption cyst, cyst, deciduous teeth

### Abstract:

The article presents a case of a 2 year-old patient with a long lasting eruption cyst located in the region of tooth 54.

### Introduction:

Eruption cyst is a form of follicular cyst, which accompanies the erupting tooth, and in a similar pattern it develops around the crown of partially or totally impacted tooth. The eruption cyst occurs when a tooth is impeded in its eruption within the soft tissues overlying the bone, whereas the follicular cyst develops around the crown of an unerupted tooth lying in the bone. The exact etiology of eruption cyst is still not clear. However early caries, trauma, infection and deficient space for eruption have been suggested as causative factors.

The most probable cause may be the presence of particularly dense fibrous tissue, which may impede eruption in the area of soft tissues (1).

Intraorally eruption cyst manifests itself as a regular dome shaped raised swelling in the mucosa of the alveolar ridge, often of bluish color, most of the time asymptomatic, but there can be pain on palpation, usually due to secondary factors causing the infection (2).

Majority of these cysts disappear on their own and usually do not require any treatment. However if they hurt, bleed, comprise the eruption of the tooth or are infected they may require surgical treatment to expose the tooth and drain the contents. There are no reports on recurrence of eruption cysts (3).

### **Case report.**

2-year-old boy reported to the Oral Surgery Department, Medical University of Lodz, referred by a paedodontist for a consultation and subsequent treatment of the lesion in the region of tooth 54, which was present in the oral cavity for over 1 month.

Medical history was irrelevant, however the child was born prematurely in the 34<sup>th</sup> week of pregnancy, but with no resulting changes in physical development. The general physical examination of the child showed no abnormalities. There was no history of any acute infection, trauma, and drug or food allergy in the recent past.

Intraoral examination revealed a single, clearly visible dome-shaped swelling, covering the alveolar ridge in the region of tooth 54. Child's mother is unable to clearly state the beginning of the lesion forming, she reported to the dentist when the lesion became symptomatic, and child signaled difficulties in mastication.

Basing on the results of intra and extra-oral examination, the eruption cyst was diagnosed. Child's mother was presented with the diagnosis and treatment plan, which included incision of the mucosa, evacuation of the contents and leaving the wound for spontaneous healing, and subsequent eruption of tooth 54.

After obtaining written consent, the surgery in general anesthesia was scheduled. The mucosa was cut at the peak of the swelling (fig. 1), and evacuation of bloody-purulent contents was performed (fig. 2). The wound was rinsed with 10ml of 0,02% chlorhexidine and local hemostasis achieved. The intra and post-operative course was uneventful, and the patient was discharged home under the parents guidance.

### **Discussion.**

The described patient presents a relatively rare case of eruption cyst occurrence. Weber et alia (3) report that this discrepancy is observed in 1 to 1,8% of cases in the deciduous teeth. Also the findings of Dhawan et alia are worth mentioning (4), which resulted in a thesis that the eruption cysts occur most often in children from 6 to 9 years old. Described disturbance shows slight male predilection, and occurs more often in patients between 6<sup>th</sup> and 9<sup>th</sup> year of age. Eruption cysts develop in maxilla and mandible alike, slightly more often on the right side. Other authors underline that such cysts in 3% of cases concern permanent mesial incisors and molars, whereas every 5<sup>th</sup> case is connected to canines and premolars (5).

Eruption of teeth is a dynamic process that involves changes before and after the tooth is visible in oral cavity. Authors (6) distinguish 3 stages of tooth eruption: one that develops inside the bone, penetrating the mucosa and one taking place above the bone. As the eruption process involves also the surrounding tissues, eruption cyst development can be a cause of disturbance in first and second stage.

Other authors (7) describe in detail the importance of early caries, trauma, infection, lack of space in dental arch. They underline that eruption cyst occurrence can be a herald of systemic disease, which we cannot confirm with our observations.

Differential diagnosis is also important and includes, but is not limited to: hemangioma, pyogenic granuloma and lymphangioma of maxillary alveolar process (8). Also local and systemic symptoms of eruption cysts, or disturbances of one of the eruption stages, are very important. That is why there is a necessity for monitoring the eruption process in children by pediatricians, but also the pedodontists.

### **Conclusion**

In conclusion, it needs to be underlined, that eruption of deciduous teeth may be accompanied by pathological processes such as eruption cysts development, but only when the systemic and local symptoms are reported, the surgical intervention is required.

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Fig.1. The mucosa was cut at the peak of the swelling.



Fig.2. Evacuation of bloody-purulent contents