

Eruption Cyst in New born: A Case Report

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ABSTRACT

Eruption cyst is unusual soft tissue cyst of pediatric patients, similar to dentigerous cyst of bone. According to World Health Organization Classification of epithelial cyst of jaws, eruption cysts count as a separate entity. The cyst occurs in gum pads overlying the erupting teeth. Their occurrence in oral cavity is uncommon as they rupture spontaneously due to masticatory forces. They are usually associated with predeciduous or primary teeth. This paper presents a case of congenital eruption cyst of lower gum pad which was managed by needle aspiration and extraction of involved teeth.

Key Words: Eruption cyst, Dentigerous cyst, Natal teeth, Neonatal teeth, Primary teeth.

INTRODUCTION

Eruption cyst is an odontogenic nonkeratinizing epithelial cyst of soft tissue origin, commonly seen in pediatric patients. It has a similar relationship to the crown of the tooth as that of dentigerous cyst. However there is a slight difference between the two that the dentigerous cyst develops around the crown of an unerupted tooth lying in the bone whereas eruption cyst occurs when a tooth is impeded in its eruption within the soft tissues overlying the bone^[13]. According to World Health Organization Classification of epithelial cyst of jaws, eruption cysts count as a separate entity^[2]. These cysts are not commonly seen in dental practice because they rupture either spontaneously or due to masticatory trauma and disappear subsequently as the tooth enters the oral cavity^[13]. Clinically this cyst appears as a smooth, tense, dark blue or purple swelling and most often present in anterior region of jaws^[13]. This paper presents a case of eruption cyst of new born which was successfully managed by needle aspiration and extraction of involved teeth.

CASE REPORT

One and half month old baby boy was brought by his parents to my centre with the chief complaint of swelling in his lower jaw front region since birth with difficulty in feeding. The baby was a healthy, full term child with normal delivery.

Physical examination revealed 1.0 x 0.5cm size exophytic, pinkish red, compressible swelling, located on anterior region of alveolus of mandible with normal overlying mucosa and without any discharge. Radiographic examination showed two natal teeth on alveolar bone inside the swelling. All routine blood and urine investigation were carried out which were within normal limits. A Fine Needle Aspiration Cytology (FNAC) of swelling was carried out which revealed fluid in the swelling. Patient was kept on follow-up. After two weeks swelling almost subsided exposing the incisal edge of natal teeth. In the next week, the natal tooth of third quadrant erupted in oral cavity which resulted in trauma to mother's breast while feeding. So, the tooth was extracted under topical anaesthesia and kept on follow-up. After 3 weeks, natal tooth of 4th quadrant also became visible in oral cavity which was mobile, so was extracted. Post-extraction healing was satisfactory.

DISCUSSION

Eruption cyst can be defined as an odontogenic cyst with histologic features of a dentigerous cyst that surrounds a tooth crown that has erupted through bone but not the soft tissue and is clinically visible as a soft fluctuant mass on the alveolar ridges^[11]. So, an eruption cyst is analogue of a dentigerous cyst found in soft tissue overlying an erupting tooth^[13, 14].

The pathogenesis is also probably very similar to that of the dentigerous cyst. The difference is that the tooth in case of the eruption cyst is impeded in the soft tissue of the gingiva rather than bone^[11].

Although most Eruption cysts reports are in the first decade of life, an age when deciduous and some permanent teeth erupts in oral cavity, only a few reports have shown in neonates^[2]. One study of approximately 3000 births reported a total of six eruption cysts in newborns^[3]. Bodner et al. reported 2 cases of eruption cysts associated with natal teeth in his study^[2]. Eruption cysts are rare at this age as teeth eruption is rare except for eruption of the natal and neonatal teeth. There is no gender predilection. Some authors found male predilection while other found no difference^[1, 6, 7, 8, and 9]. Although it may occur with any erupting tooth, the cyst is most commonly associated with the deciduous mandibular and maxillary central incisors and the first permanent molar^[14].

Clinically this cyst appears as a circumscribed, fluctuant often translucent, tense soft tissue swelling of the alveolar ridge over the site of erupting tooth^[11, 14]. Confirmation of association with a tooth can be done by radiographic examination^[12]. When the circumscribed cystic cavity contains blood, the swelling appears purple or deep blue; hence termed as **eruption hematoma**^[14]. It is usually painless unless infected. There is often a brief history of about three to four weeks duration during which they enlarge to approximately 1-1.5cm^[11]. Eruption cyst of newborn associated with natal or neonatal teeth can be classified as mature when the tooth is nearly or fully developed and immature when tooth has incomplete or substandard structure.

Unlike other cysts where radiography is essential for diagnosis, eruption cysts are not detectable on radiographic examination because there is usually no bony involvement. Even so radiographic examination is mandatory for the evaluation of the morphology of involved tooth or its surrounding jaw bone and in case of neonate, to differentiate whether the teeth involved are primary or supernumerary^[5]. Although biopsy is not essential, a FNAC should be done to confirm the fluid in the cystic swelling for proper diagnosis^[5].

Treatment may not be required because the cyst usually rupture spontaneously, permitting the tooth to erupt. If this does not occur, then marsupialization of the cyst generally exposes the crown of involved tooth and permits their speedy eruption. So, treatment of choice must be case specific with adequate clinical and radiographic examination. Even FNAC can reduce the size of cyst exposing the crown as occur in our case. In case of eruption cyst of newborn, removal of natal or neonatal teeth are indicated when they interfere with feeding, causing trauma to mother, have high mobility so are the chances of aspiration and are poorly developed^[1]. Regular follow should be done if these teeth are to be maintained.

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FIGURE LEGEND PAGE



Figure 1: 1.5 x 1.0 cm eruption cyst in the anterior region of lower gum pad.

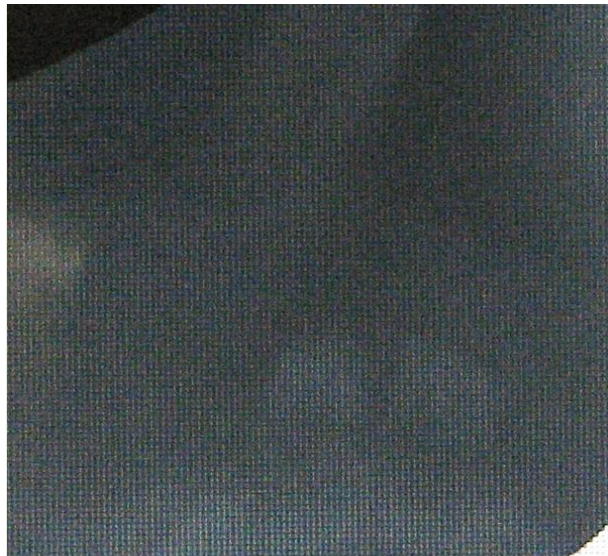


Figure 2: Natal teeth visible in IOPA X-ray.

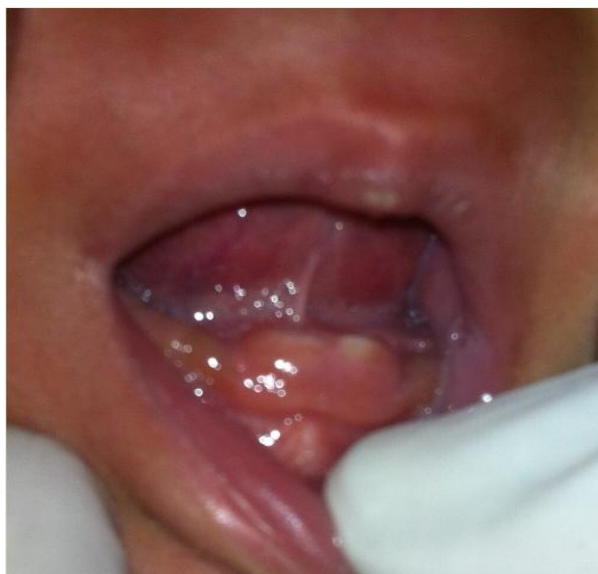


Figure 3: Almost complete disappearance of swelling after FNAC. Exposure of incisal edges of natal teeth.



Figure 4: Eruption of natal tooth of third quadrant.



Figure 5: Eruption of natal tooth of fourth quadrant.