Eruption cyst with Natal tooth: A Case Report

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Abstract

Eruption cysts are benign cysts that appear on the mucosa of a tooth shortly before its eruption. They may disappear by themselves but if they hurt, bleed or are infected they may require surgical treatment to expose the tooth and drain the contents. Here we present a case reports of eruption cysts presenting with Natal tooth in a neonate. The treatment included incising and draining the contents of the cyst and removal of natal tooth.

Keywords: Eruption cyst, Natal tooth, Neonate, Dentigerous cyst.

Introduction

The eruption cyst is a form of soft tissue benign cyst accompanying with an erupting primary or permanent teeth and appears shortly before appearance of these teeth in the oral cavity[1] It is a soft tissue analogue of the dentigerous cyst, but recognized as a separate clinical entity.[1] Dentigerous cyst develops around the crown of an unerupted tooth lying in the bone, the eruption cyst occurs when a tooth is impeded in its eruption within the soft tissues overlying the bone.[2] Although there are a number of theories about their origin,[3] both seem to arise from the separation of the epithelium from the enamel of the crown of the tooth due to an accumulation of fluid or blood in a dilated follicular space.[4] Because of this common origin, some authors do not classify the eruption cyst separately from the dentigerous cyst.[5]

Disturbances of the dental development may result in anomalies, which may be apparent as soon as the child is born. Eruption cysts are rarely observed in neonates considering that at this stage of the child's life teeth eruption is uncommon. Thus, the aim of this report is to
describe a case of eruption cysts with natal tooth in a neonate.

Case Report
An 11 days old male infant, weighing 2.4 kg, visited to a Pediatric dental clinic in Ahmedabad with chief complain of swelling in lower front gum pads region, moreover because of this swelling baby was not able to take feeding since birth.

Intraoral revealed a swelling which was 1 cm in diameter, compressible and yellow in color. The newborn baby was not able to take feeding since birth due to swelling. (Figure: 1) A radiograph of mandibular anterior area revealed the superficial placement of the natal tooth along with the swelling. With the help of clinical examination and radiographic features the diagnosis of eruption cyst was confirmed. (Figure: 2)

After taking confirmation with Pediatrician about vitamin K injection at birth time, the treatment plan was decided to retrieve natal tooth and release oedematus fluid inside the eruption cyst. Local anesthesia was given by insulin syringe according to child’s weight (2.4 kg) and after making small incision on eruption cyst, retrieval of natal tooth by curved artery forceps. During procedure a small gauze piece was placed lingual side of swelling to make sure there is no aspiration of tooth. After the treatment, for the first time child was taking feeding with satisfaction within 24 hrs. (Figure: 3 & 4)
Discussion
The eruption cyst is a form of soft tissue benign cyst accompanying with an erupting primary or permanent teeth and appears shortly before appearance of these teeth in the oral cavity.[7,8]

Clinically, eruption cyst appears as a dome shaped raised swelling in the mucosa of the alveolar ridge, which is soft to touch and the color ranges from transparent, bluish, purple to blue-black.[3,7,9,10] Most of the time, eruption cysts are found to be asymptomatic but there can be pain on palpation due to secondary factors such as trauma or infection. The exact etiology of occurrence of eruption cyst is not clear. Aguilo et al.,[9] in their study found early caries, trauma, infection and the deficient space for eruption as possible causative factors.

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.[1]

Histologically, this cyst presents the same microscopic characteristics as the dentigerous cyst, with connective fibrous tissue covered with a fine layer of non-keratinized cellular epithelium.[1]

Mostly, the eruption cysts do not require treatment and majority of them disappear on their own.[3] Surgical intervention is required when they hurt, bleed, are infected, or esthetic problems arise.[4] Treatment has to be performed in order for the child to lead a healthy and comfortable life.[6]

Conclusion
Disturbances of the dental development may result in anomalies which many times appear in the form of swelling of the overlying mucosa of the erupting deciduous or permanent teeth, mostly in children. Eruption cyst is one such lesion associated with erupting teeth. Some times due to its size and purple-blue to yellowish color it may result in tumor scare among the patients or concerned parents of a child. Hence, the Knowledge among clinicians is very essential regarding this clinical entity to provide appropriate treatment.

References