

Natal Tooth with Riga-Fedé Disease Affecting Breastfeeding: A Case Report

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Abstract

Eruption of first tooth around 6 months of age is a developmental milestone in a child’s life and is an emotional event for parents. The presence of tooth at birth or within a month after birth is a rare condition and can cause ulcers on the ventral surface of the tongue, lip, characterizing the Riga-Fede Disease. This case report was about a 45 days old girl who was diagnosed with one natal tooth in mandibular anterior region & ulcerated lesion on the ventral surface of the tongue associated with difficulty in breastfeeding. The extraction of the natal tooth was selected as a treatment of choice, over more conservative treatments due to the Grade II mobility of the tooth & the rapid resolution of the lesion.

Keywords: Natal tooth, Riga-Fede disease.

Introduction

The first few years of child’s life are most important period of developmental milestones in which child develop physically, emotionally, cognitively, socially and morally. The eruption of child’s first tooth is one such milestone which the parents eagerly wait for.[1]

The presence of teeth at birth or within a month after delivery is rare. According to Massler and Savara (1950) [2], teeth present at birth are known as Natal teeth & when they erupt during the first 30 days are known as Neonatal teeth.

The presence of Natal & Neonatal teeth may lead to the development of Riga-Fede Disease that may appear as traumatic ulcers most commonly located on the ventral surface of the tongue or lip and mother’s breast.[3] Riga-Fede disease is a benign and uncommon mucosal disorder, characterized by an ulceration of the tongue,

often caused by repetitive traumatic injuries due to backward and forward movements of the tongue over the mandibular anterior incisors. The Riga-Fede disease was identified in 1881 by Antonio Riga, an Italian physician, and described by Fede in 1890 who performed the histological studies of the lesion.[4]

According to Boden hoff and Gorlin (1963) [5], prevalence of natal-neonatal teeth ranges from 1:6000 to 1:800 and depends on the type of the study; the most common localization is - 85% of the teeth involved are lower incisors, 11% are upper incisors, 3% are lower canines and molars, and only 1% are upper canines and molars.

The purpose of this article is to report a case of a 45 days old girl infant with one natal tooth in mandibular anterior region associated with Riga–Fede disease which leads to difficulty in breastfeeding & its subsequent management.

Case Report

A 45 days old girl infant was brought by the parents to the Department of Pediatric & Preventive Dentistry, Mahatma Gandhi Dental College and Hospital, Jaipur with a chief complaint of tooth in the lower front region of jaw and difficulty in feeding. Her Parents also reported that presence of ulcer on the tongue since 14 days & child was experiencing difficulty in feeding. The medical history revealed that the child was healthy at birth with normal full-term delivery, but there was a mandibular anterior natal tooth present at the time of birth.

Intraoral examination revealed natal tooth in the mandibular anterior region and an ulcerated lesion on the ventral surface of the tongue. On further examination, it was found that the tooth was whitish opaque in color, exhibiting Grade II Mobility & the ulcer was painful on palpation.



Fig. 1: Natal tooth with ulceration on the tongue.

A Pediatrician consultation was done to ensure the birth dose of Vitamin K and blood related investigations (Hb level along with PT & aPTT) were done to rule out any blood related disorder and to prevent the risk of hemorrhage and then treatment plan was formulated.

The extraction of natal tooth was selected as the treatment of choice for the rapid resolution of the lesion and to prevent a potential tooth ingestion or inhalation by the infant with the consequent penetration into airways and lungs due to the grade II mobility of the natal tooth and for the limited risk of inadequate nutrients intake.

The parental consent was taken for the extraction & the mother was advised to feed the baby prior to the extraction of the tooth. Mother was asked to sit on the dental chair & baby's head was stabilized with the help of mother in her lap. Topical anaesthesia, Nanzicaine Jelly (Nanz Med Science Pharma Pvt. Ltd., Sirmour, India) was applied and a long gauze was taken, half of which was inserted into the oral cavity to prevent any accidental slipping of the tooth from the forceps and the other half remained outside the oral cavity for better control. The tooth was extracted with the help of mandibular deciduous anterior forceps. The compression of the extraction socket was done with a gauze piece and the mother was asked to hold it for 20–25 minutes. After 20 minutes, the bleeding was checked again for complete stoppage and the patient was set free.



Fig. 2: Extraction socket.



Fig. 3: Extracted Natal Tooth.

Discussion

The presence of teeth at birth or within a month after birth is a rare condition.[2] The etiology of the natal and neonatal teeth is still unknown, but various investigators have postulated their views regarding this. The hyperactivity of osteoblastic cells within the tooth germs during the initiation proliferative stage of tooth development may be the reason. Other reasons attributed are familial pattern like hereditary transmission of dominant autosomal gene, superficial positioning of tooth germs, hypovitaminosis, nutritional deficiencies, presence of any syndrome & environmental factors.[1]

Natal teeth presents with complications such as trauma to infant's tongue, sublingual ulceration (Riga-Fede

disease), discomfort during suckling and laceration of the mother's breast, irritation, and risk of aspiration if mobility exists. The incidence of gingival fibrous dysplasia may be increases due to the prolonged gingival irritation.

As the milk in only source of nutrition for the child during infancy, the growth and development of child is affected due to difficulty in feeding because of presence of natal tooth.[3]

According to Hebling classification (In 1997)[3], based on the clinical appearance natal teeth classified into four types :

- i. Shell-shaped crown, poorly fixed to the alveolus by gingival tissue, and absence of a root
- ii. Solid crown, poorly fixed to the alveolus by gingival tissue, and little or no root
- iii. Eruption of the incisal margin of the crown through the gingival tissues
- iv. Edema of gingival tissue with an unerupted but palpable tooth.

According to this classification, the extracted tooth in the present case was of Type 2 which had solid crown, poorly fixed to the alveolus by gingival tissue without root.

The Riga-Fede disease is not an indication for extraction. The preferred treatment of Riga-Fede disease includes smoothing of rough incisal edges or the placement of composite resin over the incisal edges. If conservative treatment options do not lead to a quick healing of the injury, the tooth extraction may be needed. Tooth extraction is indicated when the tooth is excessively mobile and there is a high risk of swallowing or aspiration.[6]

Martine et al. (1998) [7] suggested smoothing of the incisal margin as another option for non-mobile teeth. Goho (1996) reported his treatment by covering the incisal margins with composite resin or Glass Ionomer

Cement. Feeding splint was reported by Bjuggren (1973).

[8]

However, natal teeth should definitely be extracted if conservative treatment fails or the tooth is loose, to avoid the risk of aspiration. [9]

The precautions should be taken during extraction of natal and neonatal teeth: to prevent hemorrhage avoiding extraction up to the 10th day of life, before extraction assessing the need to administration of Vitamin K, considering the general health & weight of the baby, unnecessary injury to the gingiva should be avoiding, and being alert to the risk of aspiration during the extraction.[8]

The tooth of our patient was poorly fixed to the alveolus by the gingival tissue, having no root and it also exhibited Grade II mobility. Due to presence of these features, the baby was at the risk of tooth aspiration, was having difficulty in breastfeeding and also had an ulcer on the ventral aspect of the tongue, so we decided to extract the tooth.

Conclusion

Natal and Neonatal teeth are rare events in the oral cavity, but can cause Riga- Fede Disease and also creates anxiety in the child & parents as well as difficulty in feeding. Awareness of the condition is essential for proper diagnosis and management.

Early diagnosis helps in early resolution of traumatic ulcerative lesion of the soft tissue and aids in resuming normal feeding and also prevent the risk of aspiration. Treatment of Natal tooth should be carefully decided based on factors such as morphology and mobility of natal tooth as well as the presence of other complicating factors such as Riga–Fede Disease.

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