

Management of natal teeth-A case report

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Abstract

Tooth eruption at the time of birth or immediately after birth is a very rare phenomenon. Teeth present at the time of birth are known as ‘natal’ teeth and if they erupt during the first 30 days of life then known as ‘neonatal teeth’. Natal teeth mostly resemble as normal primary dentition in shape and size; however, the teeth are often smaller, conical and yellowish and sometimes have hypoplastic enamel and dentine poorly formed roots. Major complications include difficulty and discomfort during suckling, sublingual ulceration, laceration of mother’s breasts and sometimes aspiration of teeth also may occur. These situations warrant for extraction of the tooth. But if the tooth doesn’t interfere with feeding and no mobility is associated, no treatment is necessary. Natal and neonatal teeth are conditions of significant

importance to pediatric dentists and pediatricians. This report discusses a case in which a twenty-eight-days-old infant required extraction of a mobile mandibular natal tooth to avoid the risk of aspiration and interference with feeding.

Keywords: Natal tooth, neo-natal tooth, mandibular incisors

Introduction

The normal eruption of primary teeth typically occurs at 6 months of age.¹ Teeth present at the time of birth are known as natal teeth and if present during the first 30 days of life known as neonatal teeth. Premature tooth eruption have also been described in literature as congenital teeth, fetal teeth or dentition preaecox. The presence of natal teeth were 1st reported during Roman times by Titus Livius (59 BC) and Caius Plinius

Secundus (23 BC) and described in the cuneiform inscriptions found at Nineveh.² In 1950, Massler and Savara³ introduced the terms 'natal teeth' for teeth present at birth and 'neonatal teeth' for teeth that erupt within the first 30 days of life. The incidence of natal and neonatal teeth has been investigated in multiple studies. Zhu and King⁴ reported the incidence of both natal and neonatal teeth as ranging from 1:716 to 1:30 000, whereas Chow⁵ reported an incidence of 1:2000 to 1:3500. Natal teeth are encountered more often than neonatal teeth in an approximate ratio of 3:1 with a greater predilection in girl child. King and Lee⁶ reported that the teeth most often reported as natal or neonatal teeth are the lower primary central incisors. According to the study by Bodengoff,⁷ 85% of natal teeth are mandibular incisors, 11% maxillary incisors, 3% mandibular canines and only 1% are maxillary canine or molar. Mostly occur in pairs and the eruption of more than two natal teeth is rare. There have been many postulates including hypovitaminosis, hormonal stimulation, trauma, febrile states and syphilis for the presence of natal teeth etiological factor. Even hereditary factors or an underlying syndrome can be a predispose factor to its occurrence. But the most accepted concept suggests that the presence of these teeth is attributed to a superficial position of developing tooth germ, which predisposes the tooth to erupt early. Boyd and Miles⁸ reported that the erupted primary central incisors were not located in an alveolus but slightly below on the surface of the alveolar bone, very much above the germ of the permanent successor.

Natal teeth can be classified as following categories

- Category 1: A shell-like crown structure loosely attached to the alveolus by a rim of oral mucosa, no root.
- Category 2: A solid crown loosely attached to the alveolus by oral mucosa, little or no root.

- Category 3: The incisal edge of the crown just erupted through the oral mucosa.
- Category 4: A mucosal swelling with the tooth unerupted but palpable.
- A major complication from natal teeth is ulceration on the ventral surface of the tongue caused by the tooth's sharp incisal edge. This condition is also known as Riga Fede disease or syndrome. Another complication is possibility of swallowing and aspiration of the teeth due to its mobility. Natal teeth can cause injury to mother's breast and inconvenience during suckling. Other rare consequence seen with the natal teeth include carious lesions, pulp polyp, or premature eruption of successor teeth. Removal of natal teeth is indicated when they are poorly developed, interfere with feeding, highly mobile, and associated with soft tissue growth. Prophylactic administration of vitamin K (0.5-1.0 mg, i.m.) is advocated because of the risk of hemorrhage as the commensal flora of the intestine might not have been established until the child is 10 days old, and since vitamin K is essential for the production of prothrombin in the liver. The ulcerations caused by the natal teeth could be managed by rounding of the incisal edges of the teeth.⁹ Treatment of this ulcerative lesion (Riga Fede disease) has varied over the years. Early treatment consisted of excision of the lesion. Allwright advocated maintaining the neonatal tooth by smoothing of incisal edge with an abrasive instrument. In cases of mild-to-moderate irritation to the tongue, such treatment may suffice. If the ulcerated area is large and denuded, however, even the reduced incisal edge may still contact and traumatize the tongue during suckling to an extent enough to delay healing.¹⁰

Case report

A 28 days old female patient was brought by her mother to the Department of Pedodontics and Preventive

dentistry in Inderprastha dental college and hospital, Sahibabad, with the chief complaint of teeth in lower jaw since birth, and also refusal to suckle milk.

The mother gave a history of teeth present soon after the birth, in the lower anterior region of the jaw of the child while feeding her. The same thing was conveyed to the concerned Pediatrician, who said it was normal and will subside eventually. Mother gradually developed discomfort while feeding the child and also noticed slight mobility of the teeth. Extra oral examination showed symmetrical face with no lymphadenopathy. Noncontributory family and medical history. Intra oral examination revealed two crowns of teeth in mandibular anterior region, whitish opaque in color and exhibiting grade II mobility. The crown size was smaller. The gingiva, lips, tongue, floor of the mouth and buccal mucosa were clinically normal in appearance and there was no ulceration on the ventral surface of the tongue. (Fig. 1)



Figure 1: Natal teeth present in mandibular anterior region

As a danger of aspiration of these teeth existed. Hence, a decision to extract them immediately was made. Extraction was carried out under local anaesthesia with

epinephrine after application of a topical anaesthetic and careful curettage of the sockets was performed in an attempt to remove any odontogenic cellular remnants that might otherwise have been left in the extraction site (Figure 2). Post extraction haemostasis was achieved (figure 3). Postoperative instructions were given and a recall visit after 1 week was scheduled.



Figure 2: Extracted natal teeth



Figure 3: Post extraction hemostasis

Discussion

The presence of natal and neonatal teeth can be a source of doubt during the treatment plan. In deciding whether

to maintain these teeth in the oral cavity, consideration of few factors is necessary, such as implantation and degree of mobility, inconveniences during suckling, interference with breastfeeding, possibility of traumatic injury and whether the tooth is part of the normal dentition or is supernumerary.¹¹ If the erupted tooth is diagnosed as a tooth of the normal dentition, each of the other situations mentioned above should be considered. It also avoids future space management issues. The maintenance of the tooth in the oral cavity is the first treatment option, unless it is causing any injury to the baby.^{5,10} When the tooth is not mobile, natal and neonatal teeth should be left in the arch and their removal should be indicated only when they interfere with feeding or when they are highly mobile, with the risk of aspiration. They should be removed shortly after birth while the newborn infant is still in the hospital. Teeth that are stable beyond four months have a good prognosis. Esthetically, they are not pleasing due to the discoloration.¹² Pediatric dentists should make every effort to educate parents and the medical community on the preferred treatment for natal teeth. If extraction of a natal tooth is indicated, then it should be performed by a dentist to avoid unnecessary trauma to the area.¹³ Periodic follow-up by a pediatric dentist to ensure preventive oral health care is very essential. Hence to avoid any complication, early diagnosis and adequate treatment should be of prime concern in the management of natal teeth.⁹ Extraction of the natal tooth should be followed by the curettage of the socket to prevent continued development of the cells of the dental papilla as it would continue to grow resulting in eruption of tooth-like structures several months later, as reported by Ooshima et al.¹¹ and Tsubone et al.¹³ Tsubone et al. termed it as residual natal tooth. Teething symptoms such as those seen with the eruption of other primary

teeth (infantile diarrhea, drooling of saliva, malaise, etc.), though reported by Massler, Savara, and Spouge, were not seen in the present case report. We conclude that infants with prematurely erupted teeth must be carefully examined for further treatment planning, and parent counseling to bring about awareness is also equally important. Longitudinal and more divergent studies are also necessary to confirm the etiology and nature of natal teeth and to determine whether they are deciduous or supernumerary teeth.

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