Case report:

Neonatal teeth in a newborn girl: A case report

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Abstract

Natal or neonatal teeth seem to be a rare phenomenon in newborns. It is commonly thought that extracting those teeth is a reasonable choice to comfort the mother and the baby during breastfeeding. However, in such cases, the pediatric dentist must be solicited for further exploration and suitable management. We reported on a one month baby girl with neonatal teeth conserved and followed up during the first year of life.

Keywords: Neonatal teeth, newborn, management, complication.
Introduction

The eruption of the first primary teeth begins around the age of 6 months. If teeth are observed at birth, they are considered natal teeth. In case they are observed during the first 30 days of birth, they are called neonatal ones. (1) Natal and neonatal teeth incidence range from 1: 2,000 to 1: 3,500. (2-4) Radiographic examination is crucial to distinguish between a primary tooth prematurely erupted and a supernumerary one. (4) One to 10% of natal and neonatal teeth are supernumerary. (2,3) Whereas more than 90% of them are deciduous teeth prematurely erupted. (3)

They usually occur in pairs: mandibular central incisors, then maxillary incisors, mandibular molars, and maxillary molars in descending order. (2,3,5)

The exact etiology is not yet known. (2,6,7) Infection, febrile states, trauma during delivery, superficial position of the tooth germ, hormonal stimulation, and maternal exposure to environmental toxins have also been implicated as causative factors. (2,3,8) Hereditary transmission of an autosomal dominant gene has also been cited. (2,7) This clinical fact is also reported in infants with cleft lip and palate and in association with many other syndromes such as Ellis-van Creveld, Pierre Robin, and craniofacial dysostosis. (2,3)

Management of those teeth may vary from the smoothening incisal margin, coverage of incisal edges with composite resin to dental extraction. (2,4,8) It actually depends on clinical and radiological findings. (4) In literature, natal and neonatal teeth are classified depending on their appearance in the oral cavity: (1) shell-shaped crown poorly fixed to the alveolus by the gingival tissue and absence of a root, (2) solid crown fixed to the alveolus by the gingival edema of the gingival tissue with an unerupted but palpable tooth. (3,8,9) Even though, the natal teeth are varar in Tunisian population and not been reported that frequently. Hence, the purpose of the case report was to describe a case of natal tooth in Tunisin infant and the management of natal teeth.

Case presentation

A one-month-old baby girl was brought to the department of pediatric dentistry by her mother. The dermatologist has sent her for further exploration of dental structures diagnosed in the mandibular region.

The mother reported that two teeth had erupted in the incisor region of the mandibular ridge two weeks after delivery. No breastfeeding difficulty and no familial history of neonatal malformation or dental abnormalities were noted.

Oral cavity examination at the age of 1 month revealed two neonatal teeth over the anterior region of the mandibular ridge [Figure 1a]. Teeth measured 2.5 *1.5 mm in size. The right one was whitish–opaque. The left one was yellowish with hypo-mineralized enamel. Both of them had grade one mobility and smooth incisal edge. Examination of the ventral surface of the tongue did not show any pathology or ulceration.

A retro alveolar radiograph was taken and did not show any supernumerary teeth. So that deciduous teeth prematurely erupted was the retained diagnosis [Figure 1 b]. These teeth had a slightly different level of development and calcification: the primary mandibular right first incisor had barely begun root formation. However, the left one was still in the formed crown stage. Both of them were poorly implanted in the alveolar ridge [Figure 1 b].

Figure 1: Mandibular intra-oral view showing neonatal teeth erupted in the incisor area of the mandibular ridge at one month baby girl. (a) Retro alveolar radiograph of two primary mandibular right and left central incisors prematurely erupted, poorly implanted in the alveolar ridge. (b)
Figure 2. Intra-oral mandibular view at 14 months of follow-up showing premature loss of the left neonatal mandibular incisor, the persistence of the right one without any notable complication and the incomplete eruption of the primary mandibular right second molar. (a) The primary maxillary right central incisor has a yellowish and a hypo-mineralized enamel. (b)

Follow-up:

Regular dental appointments were scheduled at 4, 6, 9, 12, and 14 months to control mobility and teeth root development. The final review was at 14 months old. One neonatal tooth was maintained with no evidence of any supplemental mobility, whereas the other was missing. The mother reported that the missing one was lost due to domestic trauma. We observed normal sequence eruption of the remaining primary teeth [Figure 2a, and 2b].

Discussion

Natal or neonatal teeth usually manifest with various shapes and sizes ranging from small, conical to normal shapes. [2,8] Most of the time, they are small and discolored (brown-yellowish) or (whitish-opaque color) [2,8]. They may show hypoplastic or hypomineralized enamel and dentin as long as poorly developed roots. [2,3] They are attached to the oral mucosa in many instances as the root development is incomplete or defective. [3] Pediatric dentists should investigate the oral cavity concisely, set up the correct diagnosis, and differentiate those teeth from Bohn’s nodules, odontogenic hamartoma, and other oral manifestations. [2] Some syndromes may be discovered in association with them. [2,6] The correct diagnosis is only established after the radiological examination. As shown in our report, the retro alveolar radiograph should be realized to determine the type of teeth and to state their root formation stage. [4,6]

The management of natal and neonatal teeth may be a source of doubt involving tooth extraction or maintenance. [5,8] Some factors should be considered: degree of mobility and implantation, the occurrence of sublingual ulcer, interference with breastfeeding, laceration of the mother’s nipple, and tooth type (Deciduous or supernumerary one). [4,7,10] In prophylactic administration of vitamin K (0.5-1.0 mg) in infants less than ten days of age because of the risk of hemorrhage. [7-9] The socket’s curettage must be realized because remnant cells of dental papilla may proliferate and result in odontogenic structures’ eruption. [2,4,7] However, when the erupted tooth is a primary one, practitioners tend to its maintenance by covering the incisal edge with resin composite or smoothening it if a limited sublingual ulcer occurs(<= 2 mm).[4,5,7,9,10]

In fact, traumatic ulceration on the ventral surface of the tongue is called the Riga-Fede disease (RFD), due to continuous contact between the tongue and natal/neonatal teeth during suckling and swallowing, is frequently reported. [10-14] The conservative approach helps reducing future space management issues and may contribute to root development. [15,16] So that, mothers are counseled on the importance of oral hygiene, stopping non-nutritive sucking habits, and regular dental visits because of the risk of tooth loss or early childhood caries.[17,18] Actually, the particular histological structure and ultrastructure of natal/neonatal teeth, as long as incomplete root development, make them vulnerable to already cited affections. [17-20]

In contrast, removing deciduous teeth prematurely erupted may be suggested, if they occur in a context of general disorder such as septicemia or hypovolemia, if they are poorly implanted or excessively mobile (>2 mm) with risk of aspiration. [2,3,7,8,10] In fact, swallowing and aspiration of the tooth, injury of the mother’s breast, carious lesion, pulp polyp, and Riga-Fede the disease is the most commonly reported complication in natal or neonatal teeth cases. [3,5,8,9] Considering the reported facts above, we opted, in our case, for a conservative approach because the erupted teeth were deciduous ones prematurely erupted with grade (I) mobility in a
normal born baby girl. That attitude permitted space maintenance in the incisor mandibular area for barely one year, complicated later by traumatic injury on the left neonatal tooth. The right one was safely conserved.

Conclusion
Teeth present at birth or erupting within the neonatal period requires an accurate diagnosis and proper management by a pediatric dentist to permit normal vital functions and prevent malocclusions and caries in early childhood.

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