Natal Teeth: A Report of Three Cases

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ABSTRACT

Cases of infants born with a tooth or teeth or have teeth that erupted within the first month of their birth are rare in occurrence. Teeth present in the oral cavity at birth are termed natal teeth, while those which erupt during the first 30 days of life are called neonatal teeth. Natal and neonatal teeth usually represent units of normal primary dentition, and only 1 to 10% are supernumerary, therefore dentists advise they be left in the mouth to avoid future space management issues. In this case report we represent three cases with two each natal teeth and their long term follow-ups.

Keywords: Natal/neonatal teeth, Infant, Deciduous

INTRODUCTION

Tooth eruption as one of the development signs of a child is an important turning point both in terms of psychological and functional changes for the child’s life and in terms of emotional moods for the parents(1). Beginning from intrauterine life, tooth development and eruption follows a chronology. Consistent with development, the first deciduous tooth erupts into the oral cavity at about 6 months of age. In the literature, although there is general acceptance of specific times for eruption of each tooth, small variations depending on hereditary, endocrine and environmental factors may affect eruption times(1,2). While small variations are not considered important, first teeth presented at birth or within the first month of life attract important attention to the case for many reasons.

In the literature, many terms are used in order to describe teeth which erupt before the expected time, for example pre-deciduous teeth, praecox dentition, congenital teeth and fetal teeth (3,4). Among these, the definition which was proposed by Massler and Savara is the one that has been accepted and used by most author(2, 3, 5-10) where the authors consider only the time of tooth eruption as reference(6). According to their definition, teeth present in the oral cavity at birth are termed natal teeth, while those which erupt during the first 30 days of life are called neonatal teeth(6). Otherwise teeth which do not conform to this classification and erupt one to three and a half months following birth are called early infancy teeth(11).

The incidence of natal and neonatal teeth has been investigated in many studies, and the occurrence varies 1:2000 to 1:3500 among live births(12). With respect to gender, although there was no difference in prevalence between males and females (1), in some studies a predilection for females was reported (2, 13-16).

In the arches, natal and neonatal teeth erupt in the same position as deciduous teeth and the mandible is generally affected more than the maxilla (17). Between 38 to 76% of these teeth arise in pairs(18), and the eruption of more than two natal teeth is rare (19). Natal and neonatal teeth usually represent units of normal primary dentition, and only 1 to 10% are supernumerary (2, 6). Because mandibular incisors are the first erupting teeth in the dental arch, probably because of this reason most of them are localized in the mandibular incisor region(12). Following the mandibular incisor region (85%), maxillary incisor region (11%), the mandibular canine region (3%) and the maxillary canine and molar regions (1%) are other locations of occurrence (3,6, 20).

Because of incomplete root formation and loose attachment of the tooth to the
gingiva, natal and neonatal teeth usually show mobility in all directions which causes concern for the probability of swallowing or aspirating the teeth (2, 6, 13). Other possible complications that may rise from the presence of these teeth include discomfort during suckling, laceration of the mother's nipples and sublingual ulceration of the ventral surface of the tongue which is caused by sharp incisal edges (21). Sometimes natal or neonatal teeth cause no complaints. Because most of these teeth represent units of primary dentition, dentists advise they be left in the mouth to avoid future space management issues. So, treatment protocol depends on several factors according to the complications.

The purpose of this case report is to present three cases with natal teeth with their long term follow ups.

CASE REPORT

In this case report, we describe three babies with six natal teeth who were referred to the Department of Oral Diagnosis and Radiology by their parents with different complaints at different times. Each of the babies had two natal teeth with at least one mobile one (Figure 1, 5, 9). Table 1 shows age, gender, clinical features, resultant complaints and the treatments applied to the cases (Table 1). The mothers of the babies of cases 1 and 3 complained about difficulty while breast feeding because of the mobile teeth and ulcerations on the ventral surface of the babies tongues (case 1 and 3). All mobile teeth were extracted under topical anesthesia by applying anesthetic to the adjacent gingival and a piece of gauze placed lingual to the teeth to serve as a pharyngeal guard. The extracted teeth showed no root formations (Figure 2, 6, 10), and curettage was not performed to the extraction sites. Postoperative healing was uneventful. The parents were advised to apply oral hygiene maintenance with a wet cloth once a day and to observe the clinical positions of the other remaining teeth carefully. In addition, they were advised to return for follow-up controls regularly and to return immediately in case of any complications. In the following days the parents of case 1 were turned back to our clinic for the information about other tooth which was erupted and had mobility and because of the mother's discomfort second natal tooth was also extracted. Figure 3, 7, 11 show the intraoral views, Figure 4, 8 and 12 show the radiographic images of the babies taken during the follow-up visits in the following years.

DISCUSSION

Cases of infants born with a tooth or teeth
or have teeth that erupted within the first month of their birth are rare in occurrence (22). In the literature, the prevalence of natal teeth is reported to be three times more frequent compared to neonatal teeth (3, 15) and whether natal or neonatal, mandibular incisors constitute the greatest incidence among tooth types (11). In this report all infants we present were diagnosed to have natal teeth, and all of them were the most frequently encountered type.

Although the exact etiology of natal and neonatal teeth is not known, many researchers have offered various opinions. Nutritional deficiency, endocrinal disturbances, congenital syphilis and fever of the mother during pregnancy (23), excessive development during initiation and proliferation stage (17), hyperactivity of osteoblastic cells within the tooth germ (17) and trauma (19) have been implicated as causative factors. In addition, the most approved etiology is the initial superficial position of the tooth germ, which may be related

**Table 1: Properties of the cases**

<table>
<thead>
<tr>
<th>Case</th>
<th>Age</th>
<th>Gender</th>
<th>Tooth</th>
<th>History and chief complaints</th>
<th>Clinical features</th>
<th>Diagnosis and treatment given</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>Female</td>
<td>71, 81</td>
<td>Teeth present at time of birth. The child was feeding with difficulty. 81 was causing ulceration under tongue.</td>
<td>71; In the shape of edema of gingival tissue with an unerupted but palpable tooth. 81; Incisal margin of the crown was erupted through gingival tissue, surrounding gingival tissue was mildly inflamed, solid crown was poorly fixed to the alveolus by gingiva and whitish opaque in color.</td>
<td>71; Natal tooth, belong to primary dentition, extracted within days because of it's eruption 81; Natal tooth, belong to primary dentition, extracted.</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>Female</td>
<td>71, 81</td>
<td>Teeth present at time of birth. The child was feeding without difficulty.</td>
<td>Mobile, shell-shaped crown poorly fixed to the alveolus by gingival tissue, whitish opaque in color. 81; Non mobile, small, solid crown was well fixed to the alveolus and whitish opaque in color.</td>
<td>71; Natal tooth, belong to primary dentition, extracted 81; Natal tooth belong to primary dentition, under follow-up.</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>Male</td>
<td>71, 81</td>
<td>Teeth present at time of birth. Difficulty in sucking. There was an ulceration under tongue.</td>
<td>Mobile, shell-shaped crown poorly fixed to the alveolus by gingival tissue, whitish opaque in color. 81; Non mobile, small, conical and whitish opaque in color with only incisal margin of the crown was appearent through gingival tissue.</td>
<td>71; Natal tooth, belong to primary dentition, extracted 81; Natal tooth, belong to primary dentition, under follow-up.</td>
</tr>
</tbody>
</table>
to hereditary factors (23). In the literature, a positive family history in 8-62% of cases has been reported (5), and the condition is associated with hereditary transmission of an autosomal dominant gene (1, 24). Also, oral pathologists associate the presence of natal and neonatal teeth with some systemic syndromes such as pachyonychia congenital (Ladassohn-Lewandowsky Syndrome), occulo-mandibulo-dyscephaly with hypotrichosis, chondroectodermal dysplasia, craniofacial dysostosis, steacystoma multiplex, Sotos, Meckel-Griber, Pierre Robin and cleft palate or lip (3, 25). In one study, 2% of infants with unilateral cleft lip and palate and 10% of infants with bilateral cleft lip and palate have been reported to have natal and neonatal teeth (25). In their study, Almeida and Gomide correlate this high prevalence of occurrence to alveolar fissures and to superficial position of teeth in this region (25). The children in this case report did not show any systemic disorders or familial traits of this manifestation.

Morphologically, the clinical features of natal and neonatal teeth look like normal primary teeth in shape and size even though they are often smaller, conical and opaque yellow-brownish in color (26). Although sometimes they may be of normal size and shape, the crowns are usually poorly developed with hypoplastic enamel and dentin, and the root structures are often undeveloped which in some cases can cause great mobility (27, 28).

Histological investigations of natal and neonatal showed dysplastic or hypominerlized enamel and irregular orientation of dentin tubules in cervical and coronal regions (5, 29, 30). The incisal edge might lack enamel layer, and cementum might be absent (5, 18). Root development is often incomplete (1, 30), and the blood vessels in the pulpal tissue are often diluted and increased in number (5, 18).

In our cases the natal teeth we observed had rudimentary sizes and shapes with immature appearances of enamel hypoplasia without root formation.

While deciding about the treatment choice radiographic examination was essential to determine the amount of root development and to confirm if the teeth belonged to primary dentition (22, 31). Excessive mobility, risk of aspiration or swallowing and discomfort to the infant and to the mother are other factors which should be considered while thinking about a treatment protocol (4, 31). For our cases, our first option was to maintain the teeth in the mouth as they belonged to primary dentition, but the ones with mobility had to be extracted in order to avoid aspiration. Also, oral hygiene motivation was given to the parents in order to prevent dental caries because of hypoplastic enamel structures. It is important to monitor these children to restore the function and esthetics of the normal primary dentition so periodic follow-up was advised to ensure preventive oral health care for each child.

REFERENCES
NATAL TEETH: A REPORT OF THREE CASES

300-303.