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Extraction of Natal Teeth in a 7-day old baby - A Case Report

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Abstract

Presence of teeth at birth or within a month post-delivery is relatively a rare phenomenon. Natal teeth are often smaller, conical, yellowish and have hypoplastic enamel and dentin with poor or no root formation. It must be considered that natal and neonatal teeth are conditions of key importance not only for a dental surgeon but also for a pediatrician since their presence may lead to numerous complications. Early detection and treatment of natal and/or neonatal teeth is recommended because they may cause ulceration of the tongue, inadequate nutrients intake by the infant, dehydration and growth retardation, pain on suckling, lacerations to the mother's breasts, asphyxia or aspiration of the teeth. We report a case of a seven-day-old infant with two mobile mandibular anterior teeth that were extracted because of the fear of aspiration and refusal to feed. This report highlights the clinical features and discusses the possible treatment options.

Keywords: natal teeth, neonatal teeth, newborn, management

Introduction

The usual sequence of eruption states that it is under the control of genetics, hormonal, and nutritional states, with the eruption of the deciduous teeth occurring at an average of 6 months of age [1]. However, in rare instances, teeth erupt at or immediately after birth. These teeth are also denoted as pre deciduous, dentition praecox, congenital, or fetal dentition [2,3]. Since archaic times, these teeth have been a topic of interest and research, initially being encircled by mistaken beliefs and fallacies. They are defined by the terms 'natal teeth' and 'neonatal teeth', as the teeth appearing at birth and those teeth which erupt during the first month respectively [4]. In addition, early infancy teeth are the

ones that appear within 105 days after birth [5]. Natal teeth were observed to be more frequent than the latter [6]. According to Bondenh off and Gorlim, they usually occur in pairs and 85% of these teeth are mandibular incisors [7]. Based on their research several authors found that these teeth are more commonly seen in females, furthermore, Kates et al. reported 31% for males compared to 66% for females [8]. Although researchers have incriminated diverse hypothetical elements like infection, trauma, malnutrition, hormonal stimulation, superficially positioned enamel tooth bud was implicated as a cause, and the precise etiology in these circumstances nevertheless stays unknown [9]. They can frequently head to troubles like tenderness to the mother during nurturing, rejection to breastfeeding in newborns, ulcerations, and the threat of aspiration. Based on clinical and radiological findings, management of these teeth may vary from smoothening the incisal margins, coverage of incisal edges with composite resin to dental extraction [1,9].

The main objective of this paper is to report a case of an infant presenting with natal teeth and discuss its treatments and consequences.

Case report

A 7-day old male patient was referred by a pediatrician to our clinic for two mobile lower teeth, with a grievance of constant sobbing and lack of ability to feed. The patient is non-syndromic, weighing 1.6 kgs, and was a preterm baby of 36 weeks and 3 days. On clinical examination and further assessment, it was seen that the child was born with two teeth in the front lower tooth region of the jaw [figure 1]. They were normal-sized, whitish opaque, and presented grade III mobility. Lips, palate, gingivae, and tongue were regular and showed no abnormalities. To avoid problems with feeding and to avert any accidental aspiration, extractions of natal were planned. Before extracting the natal teeth, parents' consent was taken. It was advised by the patient's pediatrician to give 0.5–1.0 mg of vitamin K intramuscularly before extracting to inhibit potential bleeding. And extraction was done with topical anesthesia. The extraction socket was then curettage gently. The patient tolerated the procedure well. The teeth had only crown structure and were devoid of roots [figure 2A & 2B]. Guidelines regarding maintenance of oral hygiene were provided and in the assessment follow-up ten days after, the extraction socket had completely healed. Although it remained difficult to make a preoperative radiograph of the teeth, a postoperative radiograph was made and it revealed a crown-like structure suggestive of natal teeth [Figure 3].

Discussion

Titus Livius in 59 BC, first documented neonatal and natal teeth and considered these teeth to be predictions of a dreadful happening. The precise reason for the form or the early eruption is not well-understood. Various hypothetical factors that have been reported in the literature include endocrinal disturbances, the position of tooth bud, factors related to heredity, deprived health of the mother leading to deficiencies, causing hastened eruption [10]. According to Stamfelj et al, the speeded or untimely pattern of growth appears to be related to the incidence of neonatal teeth furthermore correlated it with agenesia of deciduous successors [11].

Natal teeth are seen with some congenital syndromes like Ellis–van Creveld, Jadassohn–Lewandowsky, adrenogenital syndromes, and the most common being cleft lip and palate [5,12].

Regarding clinical features, they usually manifest with various shapes and sizes ranging from small, conical to normal shapes. The majority of the time, they are small and discolored showing brown-yellowish or whitish-

opaque color [1,13]. They may have hypoplastic or hypo mineralized enamel and dentin as well as poorly developed or defective roots [1,11]. In most cases, natal teeth are seen attached to the oral mucosa. According to Spouge and Feasby (1966) [14], have classified natal and neonatal teeth on the basis of their maturity. Hebley (1997) [15], classified them based on their appearance in the mouth.

Howkins et al (1932) [16], first histologically observed and reported natal teeth with normal dentin, with irregular spaces in the area near to the amelodentinal junction and with large pulp chambers.

Histological analysis reveals hypoplastic enamel on crowns with varying levels of thickness. On natal teeth, the enamel layer is 300mm thick, while neonatal teeth have an enamel layer of 135mm [17].

There is also the possibility that mobility may lead to a breakdown ofHertwig's epithelial root sheath, preventing the development and stabilization of the root [18-20].

Ulcerations on the tongue's ventral surface are one of the major complications associated with the natal teeth. This type of clinical scenario is seen in Riga Fede syndrome or disease [18]. Additional complications seen are the possibility of swallowing and aspiration and difficulty in suckling injury [11].

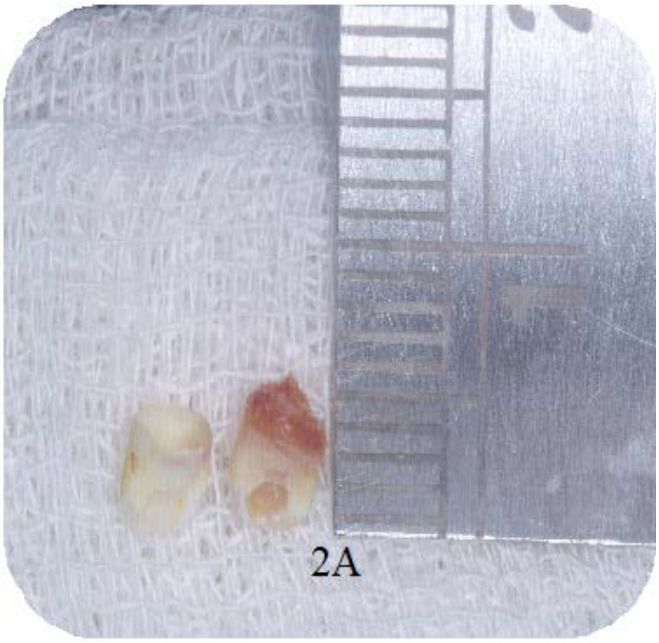
Diagnosis of these teeth is done by clinical and radiographic evaluation, to avoid inadvertent extractions. Authors have detected that most of these teeth belong to deciduous dentition and not supernumerary teeth [1,4,8,21]. According to the above citations, some factors play a pivotal role in determining to maintain them in the oral cavity, such as mobility, implantation, interfering with feeding, difficulties in suckling, and the likelihood of traumatic injury.

In the event that extraction is the preferred treatment because these teeth are mobile, they can easily be removed with hand or forceps [7].

In his article, Bönh off discusses the precautions to be taken when removing a newborn's teeth. Consider the patient's health status, avoid extraction up to the 10th day of life to prevent hemorrhage, and determine whether vitamin K should be administered before extraction, avoid excessive injury to the gingiva, and monitor the aspiration risk [7]. Preserving the natal tooth, which belongs to the deciduous dentition, would be the first option to avoid future space management problems [22,23]. Smoothening or polishing the incisal tips and layering the incisal portion with composite resin are two therapeutic methods indicated by Goho et al in such circumstances [24]. Periodic follow-up by a Pedodontist should be done to ensure preventive oral health care [18].

Figures and tables

Figure 1: A 7-day-old male infant with erupting natal teeth in the anterior mandibular region, exhibiting grade III mobility.



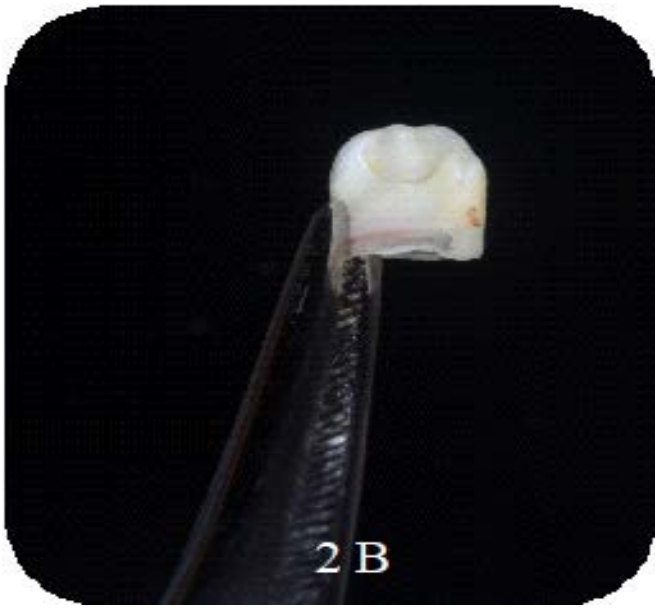


Figure 2A & 2B: Extracted natal teeth with crown and absence of root

Conclusion

Infants with early erupted teeth must be meticulously analyzed by comprehensive diagnosis, accurate treatment planning, anticipatory guidance, and proper parental counseling. As these conditions are rare, they should be thoroughly followed up by clinical professionals. The decision to keep them or extract them is case sensitive and is decided subject to mobility, aspiration risk, coupled with feeding problems encountered by the baby. Furthermore, research is required to validate the nature, etiology, origin and to ascertain if the dentition is deciduous or supernumerary.

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