

MANAGEMENT OF NATAL TEETH IN A PRETERM INFANT: A CASE REPORT AND REVIEW

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ABSTRACT

Teeth present at the time of birth are called natal teeth. In premature infants, tooth eruption is generally delayed. Therefore, it is unusual and interesting to see such an anomaly of eruption in a 31-week old preterm infant. Through this article, we wish to discuss the management protocol for such natal teeth along with the need for long term monitoring and oral health guidance.

KEYWORDS: Natal teeth, infant, premature birth

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INTRODUCTION:

Congenital teeth, fetal teeth, predeciduous teeth, dentitia praecox. These are just a few terminologies used to describe teeth that erupt at birth or shortly thereafter. Massler et al¹ named these short, conical, often hypoplastic structures as “natal” and “neonatal” teeth- terms which are still in popular use. It is to be noted that these terminologies only give the time of eruption with no consideration for the anatomy and the histology of the tooth. The incidence of natal and neonatal teeth is relatively rare and is somewhere between 1:2000 and 1:3500². The incidence of natal teeth in preterm infants, as in this case, is rare and interesting since there is an established association in literature between gestational age and time of eruption³. Preterm birth or birth occurring before 37 weeks of gestation and low birthweight (less than 2500g) is generally associated with delayed eruption³.

Natal teeth or teeth present at the time of birth are 3 times more likely to be encountered than neonatal teeth or teeth erupting within 30 days from birth, with a definite female predilection⁴. The prematurely erupted teeth may be either a part of the deciduous dentition or may be a supernumerary, although studies indicate that more than 90% of natal and neonatal teeth are a part of the deciduous teeth series^{4,5}. Therefore, the decision to extract the mature natal tooth should take into account local or general complications and parental consent.

The etiopathogenesis of such teeth is varied. Chronic febrile states, syphilis, hypovitaminosis, trauma, environmental toxins like polychlorinated biphenyls (PCBs) are just some of the postulated etiologies. Sometimes, it may be associated with a syndrome like chondroectodermal dysplasia, Pierre Robin, Down’s syndrome or in children with a cleft lip or palate⁵. The superficial positioning of the tooth germ is attributed to the premature eruption of these teeth. Whatever the cause may be, there is definite psychological and emotional component attached with regard to the parents, particularly the mother, as it may cause difficulties in feeding and is considered an ill omen in most cultures.

CASE REPORT:

A female neonate with a gestational age of

32 weeks delivered by caesarean section, admitted to the NICU for further management, was brought to our notice 1 week post-parturition with the complaint of inability to accept oral feeds along with loose lower front teeth. The infant was non-syndromic and underweight (1.5 kg) with reduced feed being the probable reason for the deteriorating weight. The perinatal history was seen to be normal.

The intra-oral examination revealed two whitish opaque teeth in the mandibular anterior region (Fig 1). Both the teeth were grade II mobile with the gum being edematous and erythematous. Based on the above finding, a diagnosis of natal teeth was made with the decision to extract immediately as there was a definite risk of aspiration. The parents were informed regarding the possible complications of retaining the teeth and their consent was taken.

Since 0.5mg Vitamin K was already administered parenterally at birth as per the recommendations of the American Academy of Paediatrics(AAP)⁶, intramuscular injection was not given on the day of the extraction. Under local anaesthesia, extraction was carried out successfully and the sockets were curetted carefully to remove any remnants of the dental papilla (Fig. 2a,2b). Initial haemostasis was achieved following which the mother was asked to breastfeed the infant, so as to achieve complete haemostasis due to the pressure on the gums, as well as to calm the baby (Fig. 3). The neonate tolerated the procedure well and on review after 2 days, the healing was found to be uneventful. Clinical examination of the extracted teeth revealed a shell-like crown with pitted hypoplastic areas and devoid of root structure.



Fig 1: Clinical examination

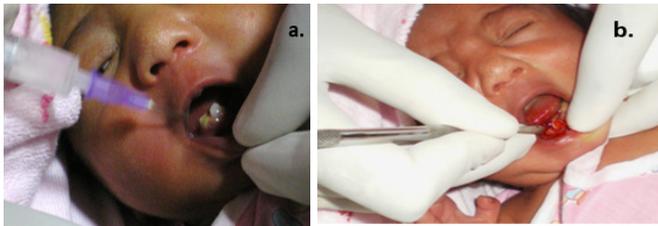


Fig 2a and 2b: Extraction following administration of local anaesthetic



Fig 3: Post extraction haemostasis achieved

DISCUSSION:

A significant retardation of eruption has been noted in preterm, low birth weight infants probably because of the period of orotracheal intubation or the need for prolonged mechanical ventilation which can apply pressure on the gums and hinder development³. The presence of natal teeth in a neonate is therefore an anomalous finding of interest to clinicians.

The decision to extract or retain natal/neonatal teeth is made after consideration of the following factors: (1) degree of mobility, (2) interference while feeding, (3) if the teeth are supernumerary or not, (4) ulcer in the ventral surface of the infant's tongue (Riga- Fede's ulcer)⁷.

Teeth that are extremely mobile, as in this case, have to be extracted as there is a risk of aspiration, although, there are actually no published reports of this in literature. In general, a mature natal/neonatal tooth with adequate root development, that does not develop any mobility even 4 months post parturition has a good prognosis. Such teeth may be simply smoothed and left behind in the arch if there is no interference while feeding or ulceration^{5,7}. Applying a layer of composite resin has also been suggested, although the enamel in these teeth is severely hypoplastic and unfit for bonding⁴. The main cause of doubt is when the teeth are a part of the normal dentition and future space management issues have to be considered. Although there are

varying thoughts by different authors regarding anterior space loss, the general contention is that the teeth be retained unless markedly mobile. Chawla et al⁸, in their review concluded that although there was some amount of arch collapse following extraction due to the shift of the neighbouring teeth into the extraction space, this was however not permanent as the successors erupted uncrowded. In such cases, radiographs play an important role as an auxiliary tool.

Any one factor alone, therefore, cannot play a role in the decision making. Once the decision to extract is made, the procedure itself may be deferred till the child is atleast 10 days old or has appropriate levels of Vitamin K⁶. This wait period is so that the normal intestinal flora, essential in the production of Vitamin K and consequently prothrombin, become established. This minimizes the risk of post-operative haemorrhage. Post-extraction, a thorough curettage is recommended as any remnants could lead to the development of root structures⁹. There have been reports of reactive fibrous hyperplasias and pyogenic granuloma due to traumatic extraction of natal teeth by the caregivers^{9,10}. A regular follow up is therefore advisable following the procedure. The American Academy of Paediatric Dentistry(AAPD) recommends that all infants should be referred to a dental provider as early as 6 months and no later than 12 months of age¹¹. It is mandatory that we educate the parents and the medical community on the required treatment and the need for continued monitoring and oral health guidance.

CONCLUSION:

Natal/neonatal teeth are rare conditions in the infant mouth that can cause significant discomfort. The decision to retain/extract such teeth varies from case to case, and is a matter of clinical judgement and parental opinion.

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CONFLICTS OF INTEREST:

There are no conflicts of interest.

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