CASE REPORT

Management of an infant having natal teeth

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SUMMARY

Eruption of teeth at or immediately after birth is a relatively rare phenomenon. These teeth are known as 'natal' teeth if present at birth and 'neonatal' teeth if they erupt during the first 30 days of life. Natal teeth might resemble normal primary dentition in size and shape; however, the teeth are often smaller, conical and yellowish and have hypoplastic enamel and dentin with poor or absent root formation. Complications include difficulty and discomfort during suckling, sublingual ulceration, laceration of the mother's breasts and aspiration of the teeth. These situations would warrant extraction. If the tooth does not interfere with breast feeding and is otherwise asymptomatic, no treatment is necessary. Negative cultural attitudes towards natal teeth demand good parental counselling and vigilant management in relation to child protection. Both general practice dentists and paediatric dental specialists may be involved in the supervision or treatment of patients with natal and neonatal teeth.

BACKGROUND

The normal eruption of primary teeth typically begins at 6 months of age.¹ Those teeth are known as 'natal' teeth if present at birth and 'neonatal' teeth if they erupt during the first 30 days of life. Prematurely erupted primary teeth present at birth have also been described in the literature as 'congenital teeth', 'fetal teeth' or 'dentition praecox'. The presence of natal teeth were reported during Roman times by Titus Livius (59 BC) and Caius Plinius Secundus (23 BC) and were 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 for women.

King and Lee⁶ reported that the teeth affected most often 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. They usually 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 or aetiology of natal teeth. Even hereditary factors or an underlying syndrome could predispose to its occurrence. But the current 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. These natal teeth can be classified into one of the 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.

CASE PRESENTATION

A 13-day-old female baby was referred from general hospital to the Paedodontics Department with loose teeth in the lower front region of the jaw and an inability to suck mother's milk (figure 1). The infant was underweight (1.5 kg). The body weight of the infant was seen to be deteriorating owing to an inability to suckle. The delivery was normal vaginal delivery and the perinatal history was normal.

On examination, there was presence of natal teeth in the mandibular anterior region. There was severe mobility (Grade II) associated with these

Figure 1 Thirteen-day-old female infant with neonatal teeth.

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teeth. A danger of aspiration of these teeth existed. Hence, a decision to extract them immediately was made after the prophylactic administration of vitamin K.

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). Postextraction haemostasis was achieved (figure 3). Postoperative instructions were given and a recall visit after 1 week was scheduled.

DISCUSSION

The presence of natal and neonatal teeth may be a source of doubt about the treatment plan. In deciding whether to maintain these teeth in the oral cavity, some factors should be considered, 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.⁹

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 these teeth in the mouth is the first treatment option, unless this would cause injury to the baby.^{5–10} When the tooth is not mobile, these 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.

Although many investigators have mentioned the possibility of aspiration of these teeth, in reality, this is an unlikely possibility since there are no reports in the literature of the actual occurrence of aspiration. However, cases of spontaneous tooth exfoliation have been reported.¹¹ On the basis of the report by the parents of a 28-day-old baby of the sudden disappearance of a natal tooth, Bigeard *et al*¹² suspected that this tooth was swallowed, a fact that indicates the possibility of aspiration.

The risk of dislocation and consequent aspiration, in addition to traumatic injury to the baby's tongue and/or to the maternal breast, have been described as reasons for removal.^{13–14}

Figure 2 Extracted natal teeth with no root development.

Figure 3 Postoperative haemostasis achieved.

Smoothing of the incisal margin was the option reported by Martins.¹⁵

Zhu and King⁴ reported that there was no relationship between wounding of the mother's nipple and the presence of natal teeth since the tongue is interposed between these teeth and the nipple during breastfeeding. Thus, traumatic injury would occur only to the baby's tongue. Riga and Fede histologically described the lesion, which then started to be called Riga-Fede disease.¹⁶

Kinirons¹⁷ described a highly peculiar situation that is, the birth of a baby with a natal tooth and the presence of a sublingual ulcer observed immediately after birth, which, according to the author, had probably been caused by suction during intra-uterine life.

Goho¹⁸ reported his treatment of a natal tooth as covering the incisal portion of the tooth with composite resin. If the treatment option is extraction, this procedure should not pose any difficulties since these teeth can be removed with a pair of forceps or even with the fingers.¹⁹

Allwright²⁰ reported the extraction of 25 natal teeth with no episode of haemorrhage even though no therapeutic precaution had been taken. However, all the extractions reported by the author were performed in babies older than 20 days.

Thus, it is safer to wait until a child is 10 days old before extracting the tooth. This waiting period before performing tooth extraction is due to the need to wait for the commensal flora of the intestine to become established and to produce vitamin K, which is essential for the production of prothrombin in the liver.^{14–20}

If it is not possible to wait, then it is advisable to evaluate the need for administration of vitamin K by a paediatrician, if the newborn was not medicated with vitamin K immediately after birth. Vitamin K (0.5–1.0 mg) is administered intramuscularly to the baby as part of immediate medical care to prevent haemorrhagic disease of the newborn.²¹

Learning points

- ▶ Natal and neonatal teeth are rare events in the oral cavity.
- ▶ The decision to retain or to extract a natal and/or neonatal tooth should be evaluated in each case, keeping in mind scientific knowledge, clinical common sense and parental opinion after the parents are properly informed about all aspects involved in this situation.
- ▶ Radiographic examination is an essential auxiliary tool for the differential diagnosis between supernumerary primary teeth and teeth of the normal dentition. When the teeth are supernumerary, they should be extracted. In this procedure, the clinician should first consider the well-being of the patient and assess the risk of haemorrhage due to the hypoprothrombinemia being commonly present in newborns.
- ▶ Teeth of the normal dentition, when considered mature, should be preserved and maintained in healthy conditions in the baby's mouth using all possible clinical resources.

Competing interests None.

Patient consent Obtained.

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