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Case Report

Dens connatalis – A rare case report of natal teeth with literature review

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ABSTRACT

It is unusual for babies to have teeth at birth or within a month of delivery. For a good differential diagnosis of whether there are extra teeth, Bhon nodules, or dental lamina cysts, a proper clinical and radiographic examination is required. The clinic branch received a rare case of natal teeth for this report's subject. An 18-day-old male new-born was checked because he had two mandibular incisor natal teeth. Because of the risk of aspiration and the patient's refusal to eat, the movable teeth had to be removed. Each patient is assessed individually to determine the best course of treatment, which may involve observation, tooth whitening, or extraction.

1. Introduction

The oral cavity contains natal teeth at the time of birth, and a neonatal tooth erupts within the first 30 days.[1] Early infancy teeth are typically referred to as teeth that erupt within 1-3.5 months after the natal period of thirty days. Birth teeth are already there and are typically not a concern.[2]

'Congenital teeth', 'foetal teeth', 'dens connatalis', or 'dentition praecox' are other terms used in the literature to refer to primary teeth that have already broken through before birth. Currently, we employ the terminology developed by Massler and Savara, who referred to all teeth present at birth as natal teeth and any teeth that emerge during the neonatal period (the first 30 days of life) as neonatal teeth.[3]

Although the specific cause is unknown, it is believed to be caused by infection, fever, trauma, malnutrition, hormonal stimulation, and exposure to environmental contaminants during pregnancy, hyperactivity of osteoblastic cells inside the tooth germ, and infection-related febrile states. The most plausible theory is based on the outcome of the dental follicle's superficial localisation, which is likely tied to a genetic component.[2,4,5]

The size and shape of natal teeth may match that of the normal primary dentition, although they are frequently smaller, conical, and yellowish, with hypoplastic enamel and dentin and weak or missing root development.[6] Bigeard et al.[7] found that under typical circumstances, the crown dimensions of these teeth are less than those of the primary teeth. Inconvenience while sucking, sublingual ulceration, laceration of the mother's breasts, and aspiration of teeth are among the complications.[8]

Several developmental defects and disorders, including as cleft lip and palate, have been linked to natal teeth. Steatocystoma multiplex, pachyonychia congenita (Jadassohn-Lewandowsky), Rubinstein-Taybi, Ellis-van Creveld (chondroectodermal dysplasia), Pfeiffer, cyclopia, Hallermann-Streiff, Pierre-Robin, Wiedeman-Rautenstrauch (neonatal progeria), Pallister-Hall, fectodermal dysplasia, craniofacial dysostosis, multiple adrenogenital, Sotos, steatocystoma, epidermolysis bullosa simplex, and Walker-Warburg syndrome are some

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conditions that fall under this category.[9–11]

According to some accounts, soft tissues such peripheral ossifying fibroma, pyogenic granuloma, and eruption cysts can be connected to natal teeth. However, there were no reports of congenital fibrous epulis linked to natal teeth in the earlier English and Chinese literature.[12–14] Here, we present a case report is presented in this article where an infant was born with two natal teeth in lower front region of jaw.

2. Case Report

A mother took her 18-day-old male infant to a private clinic, complaining that the child was unable to feed himself milk and had two teeth in the lower jaw from birth. Family, medical, and prenatal histories weren't relevant. Mandibular anterior region on intraoral examination revealed two crowns of the teeth that were yellowish opaque in colour and exhibited grade III movement.(Figure 1) The natal teeth's placements correspond to those of teeth 71 and 81, and the crown size and look were also normal. The intraoral mucosa and gum pads in the maxilla and the remaining mandible were normal. A natal tooth diagnosis was made.

Fig. 1: Natal teeth in mandibular anterior region

The patient was referred to a paediatrician for advice for the reason that urgent extraction was the preferred course of action. The teeth were removed under rigorous aseptic conditions while the patient was under topical local anaesthetic, which they tolerated well. The teeth that were taken had a crown but no roots. After 5 days, the patient was assessed again, and it was discovered that their recuperation had gone smoothly.

3. Discussion

The teeth that emerge in the oral cavity at birth, either alone or in pairs, are referred to as natal teeth. Human natal teeth are uncommon and frequently erupt in the mandible, particularly the lower main central incisors.15 Birth teeth can cause a variety of issues, such as pain when sucking, laceration of the mother's breasts, sublingual ulcers, and tooth aspiration.[15]

Titus Livius (59 BC) and Caius Plinius Secundus (23 BC) both recorded the existence of natal teeth throughout the Roman era, and the cuneiform writings discovered at Nineveh detailed them.17 Less than 10% of natal teeth are supernumerary.[2] Since the natal teeth were present in the 18-day-old male patient in the current case report, the condition is slightly more common in females than it is in men.

The present example was rare in and of itself, with the least predilection in contrast, and Kates et al. (1984) indicated a preference for females, reporting a 66% proportion for females against a 31% proportion for males.[16] In a study undertaken by G. Bulut et al. in 2019 including 17,829 babies who were admitted to the Neonatal Clinic at a public children's hospital between 2005 and 2011, 27 neonates were identified as having erupted teeth. These teeth were assessed for position, clinical appearance, and mobility.[17] Whereas, Kadam M et al.,[18] study supports the incidence of 2% natal teeth among unilateral complete lip and palate.

Lower primary central incisors account for 85% of all afflicted teeth, followed by maxillary incisors (1%), mandibular canines and molars (3%), and maxillary canines and molars (1%). The significant preference for the lower central incisors is compatible with the typical sequence of primary deciduous tooth eruption, which was consistent with this case report's findings of natal teeth in the mandibular anteriors.[19] Tay et al., reported a case of natal teeth in which a second upper molar and a lower canine were involved.[20] Olatosi OO et al.,[21] in 2012 reported three of the cases presented with natal molar teeth which are rare.

Natal teeth usually occur in pairs. The eruption of more than two natal teeth is rare. Masatomi et al.,[22] reported an infant with fourteen natal teeth. Also Aljohar A et al.,[23] in 2021 & Sogi S et al.,[24] 2011 also reported case reports of multiple erupted natal teeth in both the arches.

These teeth were then categorised based on their clinical features into: Mature: When they resemble primary teeth in morphology and have fully formed shapes; immature—when its development and structure are not complete.[5] According on their observations of natal teeth's clinical appearance Helbling et al.,[25] categorized natal teeth

into 4 varieties based on the clinical appearance in 1997:

1. Shell-shaped crown poorly fixed to the alveolus by gingival tissue and absence of a root;
2. Solid crown poorly fixed to the alveolus by gingival tissue and little or no root;
3. Eruption of the incisal margin of the crown through gingival tissue;
4. Oedema of gingival tissue with an unerupted but palpable.

If the degree of mobility is more than 2 mm, the natal teeth of category (1) or (2) usually need extraction. The present case was of type 2 with solid crown with complete root resorption.

The typical radiographic appearance of the tooth is a hollow, calcified cap of enamel and dentin that lacks pulp tissue and has a form similar to a celluloid crown.[3] Histological studies have shown that the majority of the crowns of natal and newborn teeth have hypoplastic enamel covering them in varied degrees of severity, are devoid of roots, have an abundance of vascularized pulp, have irregular dentin formation, and lack cementum production.[6]

Both benign and malignant oral disorders are included in the differential diagnosis of natal teeth. They are most frequently confused with gingival fibroma, congenital epulis, dental lamina cysts, Bohn nodules, and lymphangiomas if they are found in the posterior oral cavity.[26]

A positive prognosis exists for teeth that are stable after four months. Early tooth extraction can result in unfavourable effects including anterior crowding.[23,27] The treatment strategy is determined by a number of variables, including the tooth's degree of movement, its impact on breastfeeding and sucking, the likelihood of severe injury, and whether it is a normal tooth or a supernumerary tooth. It is essential to do a clinical and radiographic assessment before deciding whether to extract or leave the tooth in place.[2,11,28]

4. Conclusion

In babies, the natal tooth is described as a rare sign. There are several potential causes, but the specific aetiology is unknown. The basis of therapy in the majority of cases is extraction because keeping the tooth has a higher risk that, in most situations, can be fatal. For the purpose of further treatment planning, infants with prematurely erupted teeth must undergo comprehensive examination. Parent education to raise awareness is also crucial. Additional research on the early or rapid pattern of dental growth will shed additional light on the matter.

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6. Conflict of Interest

None.

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