Multiple Natal Teeth in a One-Week-Old Baby:A Case Report

AZIZA ALJOHAR[1], Hadeel Alwakeel[2], and Antonio Palma[1]

[1]King Faisal Specialist Hospital and Research Center
[2]King Saud University

October 1, 2020

Abstract

Natal teeth are the teeth present at birth, while neonatal teeth are those that erupted during the first month of life. Both are not uncommon anomalies with an incidence of 1:700 to 1:3500, respectively. Natal teeth occur more frequently than neonatal teeth at a ratio of approximately 3:1. Natal teeth

Introduction

One of the main objectives of the pediatric dentistry specialty is to provide oral and dental care to patient from infancy to adolescence.

Occasionally, infants are born with an early eruption of teeth in their oral cavities. When present at birth (i.e. erupted in utero), such teeth are termed natal teeth. When the eruption occurs during the first month of life, teeth are term neonatal teeth.

Both natal and neonatal teeth are anomalies with unknown etiology,

Their incidence is 1:700 to 1:3500, respectively. Natal teeth are more frequent than neonatal teeth with a ratio of approximately 3:1. Natal teeth usually occur in pairs most commonly located in the lower anterior mandible; however, the presence of supernumerary natal teeth is considered a rare condition occurring at rate of less than 10% of all reported cases (2). The majority of natal and neonatal teeth represent the early eruption of normal primary dentition.

Occasionally, natal teeth are associated with complications for both the neonate and the mother. Firstly, they may be a cause for interruptions in breast-feeding as they cause discomfort for the mother by irritating the breast. They may also cause irritation to the neonatal tongue and ulcerations of its ventral surface (known as Riga- Fédé disease) (3, 6).

Case report

A One-week-old Saudi male was referred from neonatal intensive care unit to the section of pediatric dentistry at King Faisal Specialist Hospital and Research Center's dental department due to the presence of multiple intraoral structures.

He is a full-term baby, productive of elective cesarean section with APGAR score of 6, 7and 8 in 1^{st},$5^{th}$and 10^{th} minutes respectively. One hour after birth, he was admitted to NICU due to respiratory distress, and then he was discharged one day later.

He is known to have significant family history of ectodermal dysplasia from his mother Side. He has one older sibling who is medically fit and who had not experienced natal or neonatal teeth in infancy.

On general examination, the child appeared to have a symmetrical face without any obvious dysmorphic features (figure 1). Intraoral examination revealed eight shell shaped crowns located in the right, left and anterior mandible as well as the left posterior maxilla (figure 2). They exhibited grade III mobility (mobility of more than 1 mm in each direction and depressed in the socket). The lips, gingivae palate, tongue, floor of the mouth, and buccal mucosa were clinically normal in appearance and within normal limits.

The mobility of the teeth posed a risk for the child; thus, the treatment plan was discussed with the parents and they agreed to extract all the teeth to avoid possible aspiration However parent was aware that the chance their child will have primary teeth is seldom after removal of those natal teeth. Primary pediatrician clears the child for dental extraction. Also, he was evaluated by the genetic department to exclude ectodermal dysplasia since the mother was a known case. The Genetic report revealed that diagnosis is not exclusive due to patient age, however they recommended follow up.

Child was booked one week later and dental extraction was done by tweezer without anesthesia and gentle curettage was performed on the extraction socket. The infant tolerated procedure very well. The extracted teeth had a crown but were lacking in roots. On his 1 – week follow up appointment two natal teeth were found and they were mobile in posterior maxilla and were removed. At his 2 weeks and 3 months follow up, the child was well and no abnormalities were reported. The child missed his regular recall appointment for few years then he presented to the dental clinic at age 4 years with his mother, she was concerned about missing teeth.

During extraoral clinical examination child growth was normal to his age , he did not reveal any feature of ectodermal dysplasia although it was confirmed by genetic testing , He has thick hair, normal facial skin with no pigmentation.

Intra oral examination shows absence of primary dentition except upper primary canines and lower second primary molar which were fully erupted, resorption of alveolar ridge was also noted (Figure 3).

Child has regular followed up appointment in dental department to evaluate his condition and to formulate a treatment plan that may include option of constructing removable denture in order to enhance esthetic and function.

Discussion

The etiology of natal and neonatal teeth remains undetermined. They may appear as an isolated dental finding but are sometime associated with developmental anomalies like cleft lip and palate, and syndromes such as chondroectodermal dysplasia, Hallermann-Streiff (Mandibulo-oculo-facial dyscephaly with hypotrichosis) and ectodermal dysplasia (3, 5). Environmental factors, particularly polychlorinated biphenyls, appear to increase the incidence of natal teeth (3)

Even though a clear causative factor is yet to be determined for natal teeth, it was found to be related to various conditions, including: superficial position of the tooth germ, increased eruption rate due to pyretic incidents, hormonal stimulation, developmental abnormalities, syndromes, family history, and osteoblastic activity within the germ zone related to the remodeling phenomenon. The presence of relatives with a history of natal or neonatal teeth was found in 15% of cases (3).

The appearance of each natal tooth into the oral cavity can be classified according to Hebling into four categories as the teeth emerge into the oral cavity (4).

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 the gingival tissues.
4. Edema of gingival tissue with an un-erupted but palpable tooth

If the degree of mobility is more than 2 mm, the natal teeth of category (1) or (2) usually need extraction.

If extraction is the treatment of choice, it can be deferred till the child is 10 days of age or more and has

appropriate blood levels of vitamin K to prevent risk of bleeding. This 10-day waiting period is to allow the normal flora of the intestine to become established to produce vitamin K, an essential factor for prothrombin production in the liver. Since parenteral vitamin K prevents a life-threatening hemorrhagic disease of the newborn, the American Academy of Pediatrics recommends that all newborns be given a single intramuscular dose of

0.5 to 1 mgof vitamin K (1).

After extraction is done, gentle curettage of the socket is generally recommended. This is necessary to prevent Hertwig's epithelial root sheath from forming root structures.

Conclusions

The occurrence of natal and neonatal teeth is not uncommon. Early consultation with the pediatric dentist is recommended to prevent complications such as risk of aspiration, deformity or mutilation of the tongue. The decision to maintain or remove these teeth should be considered on a case-to-case basis and tailored according to patients' situation. To our knowledge, this is the first reported case of the presence of multiple natal teeth in Ectodermal dysplasia child as confirmed by genetic testing.

Why this paper is important to pediatric dentists?

1. To present unusual case of abnormal teeth development
2. To present Different treatment modalities
3. To share clinical knowledge in management of such cases

Ethical approval the manuscript was reviewed by the ethical committee at King Faisal Specialist: Hospital before the submission. No funding was obtained for this case report.

Author Contribution:

Dr. Aziza Aljohar *; led the writing

Dr. Hadeel Alwakeel **; collected the data also review the manuscript

Dr. Antonio Palma***, help in treating the child and help in preparation of the manuscript

Conflict of Interest

All Authors declare that No associations with commercial entities. No conflicts of interests, and no Funding or financial support obtain for the case report

References

1. Vitamin K compounds and the water-soluble analogues: use in therapy and prophylaxis in pediatrics. AAP, Committee on Nutrition; 1961; 501-7.
2. Rao RS, Mathad SV. Natal teeth: Case report and review of literature. J Oral MaxillofacPathol 2009; 13(1):41-6.
3. Mohamed M, Ashok Kumar KR, Keswani K, Babaji P. Natal Teeth: Review of Literature and A Case Report. Indian Journal of Dental Sciences 2013;5(2):65-7.
4. Hebling J, Zuanon ACC, Vianna DR. Dente Natal—A case of natal teeth. OdontolClin1997;(7):37-40.
5. Malki GA, Al-Badawi EA, Dahlan MA. Natal Teeth: A Case Report and Reappraisal. Case Rep Dent 2015; 1-4.