

Case Report

Natal Teeth: Report of Two Cases and Review of Literature

Firoza Samadi, Prashant Babaji, Sonali Saha, Ashish Katiyar, Swati Chowdhry

Abstract

Natal teeth are defined as teeth that are present in the mouth at the time of birth, presence of which may interfere with breast feeding. Natal and neonatal teeth erupt commonly in the mandibular anterior region than in maxillary region. They are most commonly a part of deciduous dentition. The prevalence has been observed between 1 in 2000 to 3500 live births. Presence of natal tooth may lead to numerous complications. Hence the purpose of the present paper is to review and discuss its clinical features, complications and management.

Key words: Deciduous;Dentition;Natal Teeth;Riga-Fede Disease.

Firoza Samadi, Prashant Babaji, Sonali Saha, Ashish Katiyar, Swati Chowdhry. Natal Teeth: Report of Two Cases and Review of Literature. International Journal of Oral & Maxillofacial Pathology; 2011;2(1):33-36. ©International Journal of Oral and Maxillofacial Pathology. Published by Publishing Division, Celesta Software Private Limited. All Rights Reserved.

Received on: 23/12/2010 Accepted on: 26/02/2011

Introduction

First deciduous tooth erupts in the oral cavity at about six-months of age¹. Teeth present at the time of birth are called Natal teeth. Teeth which erupt in the neonatal period that is, within thirty days of birth are Neonatal teeth². Teeth erupting beyond the natal period of thirty days (i.e. erupting within 1-3.5 months) are usually referred to as early infancy teeth^{3,4}.

Terms such as congenital teeth, foetal teeth, pre-deciduous teeth, premature teeth, precociously erupted teeth or dentitia praecox have been used to refer this condition⁵. Natal and neonatal teeth erupt commonly in the mandibular anterior region, but several reports show their unusual occurrence in the mouth, it has been observed that, natal and neonatal teeth erupt 85% in mandibular incisor region, 11% in maxillary incisor region, 3% in mandibular canine region and 1% in maxillary canine and molar region⁶.

The exact etiology is unknown, it is thought be due to infection, febrile states, trauma, malnutrition, superficial portion of the tooth germ, hormonal stimulation and maternal exposure to environmental toxins⁷.

Case report 1

A three months old male infant was referred for evaluation with complaint of a tooth in the lower jaw since birth and difficulty in breast feeding. Oral examination revealed an ulcerated lesion on the ventral surface of tongue along with a tooth in mandibular anterior region (Fig 1). The tooth exhibited an opaque whitish coloration with grade I mobility. The crown size and the appearance of the gingiva seemed to be normal.



Figure 1: Natal tooth in mandibular anterior region with ulcerative lesion at ventral surface of tongue

A diagnosis of natal tooth in association with Riga-Fede disease was made. Examination of the rest of intraoral mucosa revealed no other lesions. Radiographic examination revealed a natal tooth in the mandibular anterior region, devoid of root portion along with a normal developing primary lower incisor tooth germ below it. The medical history was non-contributory. As the tooth was the suspected cause of the chief complaint, it was extracted under topical anaesthesia (Fig 2). Four weeks later, on examination a complete and uneventful healing of the extraction socket was observed. The baby appeared to be much more contented and the mother reported that he was feeding normally.

Case Report 2

A three week old male infant was referred to the Department of Paediatric Dentistry by his paediatrician with the chief complaint of a tooth present in the lower anterior region since birth. Family history was non-contributory. Intraoral examination revealed



Figure 2: Post-operative area after extraction of natal tooth and ulcerative lesion at ventral surface of tongue.

A tooth like structure is seen in the mandibular anterior region with grade III mobility (Fig 3).



Figure 3: Natal tooth in mandibular anterior region.

Radiographic examination showed that a normally developing succedaneous tooth germ was present below the tooth like structure (natal tooth). The tooth was extracted because of difficulty in breast feeding and fear of aspiration due to its severe mobility. The extracted tooth had a crown but was devoid of root (Fig 4). The patient was recalled after two weeks and it was reported by parents that, he was feeding normally without any post-operative complications.



Figure 4: Extracted natal tooth devoid of root.

Discussion

For past hundreds of years many cases of infant born with natal and neonatal teeth have been reported in the dental literature. Natal and neonatal teeth are most commonly a part of deciduous dentition and erupt in the same position as that of deciduous teeth in the arch. They are more common in mandibular arch than in the maxillary arch and more commonly occur in the incisor region rather than the canine and molar regions. The natal tooth is made up of enamel, dentin and pulp with or without root. The eruption of more than two natal teeth is rare but few cases of multiple natal teeth have also been reported in the literature⁷. The prevalence ranges from 1:700 to 1:30,000 depending on the type of the study⁸. Other reports reveal it to be around 1 in 2000-3500 live births^{2,7,9-12}.

Classification

Spouge and Feasby (1966) have suggested that clinically, natal and neonatal teeth are further classified according to their degree of maturity^{8,10}.

1. A mature natal or neonatal tooth is one which is nearly or fully developed and has relatively good prognosis for maintenance.
2. The term immature natal or neonatal tooth, on the other hand, refers to a tooth with incomplete or substandard structure; it has a poor prognosis.

The appearance of each natal tooth into the oral cavity can be classified into four categories as the teeth emerge into the oral cavity^{7,8,10,13}.

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 unerupted but palpable tooth

Natal tooth is a predeciduous tooth that has been described as hornified epithelial structure without root, occurring on the gingiva over the crest of the ridge, which may be easily removed. These predeciduous teeth have been thought to arise either from an accessory bud of the dental lamina ahead of the deciduous bud or from the bud of an accessory dental lamina¹⁴.

Spouge and feasby, however believe that considering predeciduous teeth as an entity is a misinterpretation and that

such structures, present at birth, undoubtedly represent only the dental lamina cyst of the newborn¹⁴.

Natal and neonatal teeth are frequently found in association with developmental abnormalities and recognized syndromes. These syndromes include Adrenogenital syndrome, Cleft lip and palate, Craniofacial dysostosis, Craniosynostosis syndromes, Ectodermal dysplasia, Ellis-van Creveld syndrome, Epidermolysis bullosa simplex, Hallerman-Streiff syndrome, Jadassohn-Lewandowsky syndrome, Multiple steatocystoma, Pallister-Hall syndrome, Pfeiffer syndrome, Pierre-Robin syndrome, Polydactyly type II, Rubinstein-Taybi syndrome, Sotos syndrome, Steatocystoma multiplex, Van der Woude syndrome, Walker-Warburg syndrome and Wiedeman-Rautenstrauch syndrome^{7,15,16}.

Clinically, the natal teeth are small or of normal size, conical or of normal shape. They may reveal an immature appearance with enamel hypoplasia and small root formation. Natal teeth may exhibit a brown-yellowish or whitish opaque colour. They are attached to a pad of soft tissue above the alveolar ridge⁸. The dimensions of the crown of these teeth are smaller than those of the primary teeth under normal conditions.

Complications related to natal and neonatal teeth include discomfort during suckling, irritation and trauma to infants' tongue, sublingual ulceration (Riga-Fede disease) laceration of the mother's breast and risk of aspiration of the mobile teeth^{9,10}. Prolonged gingival irritation from natal or neonatal teeth may cause localized inflammation of the gingiva or fibrous hyperplasia^{15,17}.

Cysts of the dental lamina and Bohn's nodules could be confused with neonatal teeth, and therefore the diagnosis can be confirmed only by radiographic examination. Another condition which should be considered is epulis, which are tumor-like growths of the gingiva, and are reactive rather than neoplastic lesions. Other differential diagnosis includes lymphangioma and hamartoma of the alveolar ridge^{1,7,17}.

Management

Extraction of natal and neonatal teeth is reserved until they cause difficulty to the infant and mother. Occasionally, they may exfoliate spontaneously or require extraction because of its excessive mobility, concerns regarding aspiration or the loss of

attachment with subsequent development of abscess. Extraction may be needed to alleviate feeding difficulties or complications like Riga-Fede disease. Extraction may also be indicated if child's age is 10 days or above and child has appropriate amounts of Vitamin K in the blood. Otherwise prophylactic administration of vitamin K (0.5-1.0mg, i.m) is advocated before and after extraction, since vitamin K is essential for the production of prothrombin in the liver as there could be risk of haemorrhage¹⁸.

To prevent continued development of the cells of the dental papilla, extraction of the tooth should be followed by curettage of the socket. Failure to curette the socket may cause eruption of odontogenic remnants and necessitate future treatment. Alternatively, to prevent the injury to maternal breast, grinding or smoothing of the incisal edges of the teeth is also recommended⁸.

Summary and Conclusion

It must be considered that natal and neonatal teeth are conditions of fundamental importance to pedodontist and paediatrician, since their presence may lead to numerous complications. The child must be monitored to restore the function and aesthetics of the normal primary dentition.

Author Affiliations: 1. Dr. Firoza Samadi, Professor and Head, 2. Dr. Prashant Babaji, Reader, 3. Dr. Sonali Saha, Senior Lecture, 4. Dr. Ashish Katiyar, Senior Lecturer, 5. Dr. Swati Chowdhry, Post Graduate Student, Department of Pedodontics and Preventive Dentistry, Sardar Patel Post Graduate Institute of Dental and Medical Sciences, Lucknow, U.P, India

Acknowledgement: All the Staff members, Sardar Patel Post Graduate Institute of Dental and Medical Sciences, Lucknow, U.P, India.

References

1. Alexander K.C. Leung, William Lane M. Robson. Natal Teeth: A Review. *J Natl Med Assoc* 2006;98(2):226-8.
2. Massler M, Savara BS. Natal and neonatal teeth; a review of 24 cases reported in the literature. *J Pediatr* 1950;36(3):349-59.
3. Kates GA, Needleman HL, Holmes LB. Natal and neonatal teeth: a clinical study. *JADA* 1984;109:441-3.
4. Anegundi RT, Sudha P, Kaveri H, Sadanand K. Natal and neonatal teeth: a report of 4 cases. *J Indian Soc Pedo Prev Dent* 2002;20(3):86-92.
5. Portela MB, Damasceno L, Primo LG. Unusual case of multiple natal teeth. *J Clin Pediatr Dent* 2004;29(1):37-40.

6. Kamboj M, Cougule R. Neonatal Tooth—How Dangerous Can it Be? *J Clin Pediatr Dent* 2009;34(1):59-60.
7. Leung AKC, Robson WLM. Natal teeth: A review. *J Natl Med Assoc* 2006;98(2):226-8.
8. Rao RS, Mathad SV. Natal teeth; Case report and review of literature. *J Maxillofac Path* 2009;13(1):41-6.
9. Bodenoff J, Gorlin RJ. Natal and neonatal teeth. *Folklore and fact. Pediatrics* 1963;():1087–93.
10. Spouge JD, Feasby WH. Erupted teeth in new born. *Oral Surg Oral Med Oral Pathol* 1966;22:198–208.
11. Rao BB, Mamatha GR, Jameera KM, Hegde RB. Natal and neonatal teeth: A case report. *J Indian Soc Pedo Prev Dent* 2001;19:110-2.
12. Limos LV and Shintome LK. Natal and Neonatal teeth. *Einstein*. 2009;7(1):112-3.
13. Nevas RMA, Menoza MGM, Leonardo MR, Silva RAB, Herrera Hw, Herrera HP. Congenital eruption of cyst: A case report. *Braz dent J*. 2010;21(3):259-61.
14. Rajendran R. Cysts and tumours of odontogenic origin. In Rajendran R, Sivapathasundharam B. Shafer's textbook of oral pathology. 6th ed. Reed Elsevier India Private Limited 2006;48
15. Alvarez MP, Crespi PV, Shanske AL. Natal molars in Pfeiffer syndrome type 3: A case report. *J Clin Pediatr Dent* 1993;18:21-4.
16. Babaji P. Oral abnormalities in the Ellis-van Creveld syndrome. *Indian J Dent Res*. 2010;21(1):143-145
17. Singh S, Subbba Reddy VV, Dhananjaya G, Patil R. Reactive fibrous hyperplasia associated with a natal tooth: A case report. *J Indian Soc Pedo Prev Dent* 2004;22:183-6.
18. Groeneveld X, Damme VP. Natal teeth in perspective: Literature review and report of two cases. *Ned Tijdschr Tandheelkd* 1993;100(2):49-51.

Corresponding Author:

Dr. Prashant Babaji,
Department of Pedodontics & Preventive Dentistry,
Sardar Patel Post Graduate Institute of Dental and Medical Sciences,
Lucknow-226025, Uttar Pradesh, India.
E-mail - babajipedo@rediffmail.com
Mobile no: +918009058818

Source of Support: Nil, Conflict of Interest: None Declared