

Congenital teeth: Superstition and Reality – A Case Report and Review of Literature

Swati Chowdhary¹,
Sandeep Tandon²

¹MDS, Resident, Department of Paediatric and Preventive Dentistry, Government Dental College and Hospital, Jaipur, Rajasthan, ²MDS, Professor and Head, Department of Paediatric and Preventive Dentistry, Government Dental College and Hospital, Jaipur, Rajasthan

Corresponding Author: Dr. Swati Chowdhary, Department of Pediatric and Preventive Dentistry, Government Dental College and Hospital, Jaipur, Rajasthan. E-mail: varshajadhav05@gmail.com

Abstract

Tooth eruption follows a chronology and is subject to small variations depending on hereditary, endocrine and environmental features. At times, however, the chronology of tooth eruption suffers a more significant alteration in terms of onset. Natal and Neonatal teeth are associated with some superstitions so proper management of these teeth are essential both from social and clinical point of view. Here we present two such interesting cases. Hence, both the paediatrician and paediatric dental specialists should be involved in the supervision or treatment of patients with natal and neonatal teeth.

Keywords: Natal teeth, Congenital teeth, Neonatal teeth, Superstition, Folklore

INTRODUCTION

Eruption of the first tooth at about 6 months of age is a milestone both in terms of functional and psychological changes in the child's life and in emotional terms for the parents. The expectations about the eruption of the first teeth are great and are greater when the teeth appear early in the oral cavity. These precociously and prematurely erupted teeth lead to the interest, curiosity, and concerns of clinicians as well as of the parents. These teeth are termed as Natal and Neonatal teeth. Natal teeth are teeth that are already present at the time of birth. These teeth are different from neonatal teeth, which grow and are visible during the first 30 days after birth.¹ The teeth that erupt before the normal time, are also designate as congenital teeth, fetal teeth, predeciduous teeth, precocious dentition, dens caninialis and dentitia praecox in the literature.²

CASE REPORT

Case-1

A 4-day-old male infant was referred from S.M.S Medical College and Hospital, Jaipur to the department of Paediatric and Preventive dentistry Govt. Dental College and hospital, Jaipur with the chief complain of small mass on the front region of lower jaw since

birth. On intraoral examination the swelling was firm on palpation (Figure 1). No other abnormality was detected. Medical and family history was non-contributory. The infant had no problem in breast-feeding. Cyst of dental lamina, Bohn nodules and Natal teeth were suspected. Radiographic examination was done to confirm the diagnosis. In radiograph natal teeth of normal dentition series were detected (Figure 2). As there was no difficulty in breastfeed decision to maintain the teeth was made. A proper counselling of the parents was done and recall for periodic check-up.



Figure 1: Clinical picture



Figure 2: Clinical picture

Case-2

A 20 days old female neonate came to the department of Paediatric and Preventive dentistry Govt. Dental College and hospital, Jaipur with the chief complaint of difficulty of feeding and suckling, and also mother experienced pain and discomfort during feeding. On examination two neonatal teeth were detected with grade 3 mobility, her mother told that these teeth were erupted 15 days after her birth. The teeth were normal in shape, size and colour but immature (Figure 3). As the teeth were immature they may be aspirated and produce difficulty in breast feeding so the teeth were extracted and patient was recalled for periodic check-up.



Figure 3: Extracted neonatal teeth

LITERATURE REVIEW

Superstition and Folklore

Tooth eruption follows a chronology and is subject to small variations depending on endocrine, hereditary and environmental features. At times, however, the chronology of tooth eruption suffers a more significant alteration in terms of onset. This condition has been the subject of

curiosity and study since the beginning of time, being surrounded by beliefs and assumptions. The occurrence of natal and neonatal teeth has been associated with diverse superstitions among many different ethnic groups and cultures. Shakespeare contributed his thoughts on natal teeth in “King Henry the Sixth” when he refers to Richard the Third in his quotation, “teeth hadst thou in thy head when thou wast born to riguity thou camest to bite the word”.³ In some cultures like Malaysian communities, a natal tooth is believed to herald good fortune. Chinese community considers presence of these teeth as a bad omen and the affected children are considered to be monsters and beavers of misfortune. In Poland, India, and Africa, superstition prevailed for a long time, and in many African tribes children born with teeth were murdered soon after birth because they were believed to bring misfortune to all they would contact. In England, the belief was that babies born with teeth would grow to be famous soldiers, whereas in France and Italy the belief was that this condition would guarantee the conquest of the world.⁴

Incidence and Prevalence

The incidence of natal and neonatal teeth has been estimated to be 1:1000 and 1:30,000. Incidence of natal and neonatal teeth reported in literature was highly varied and depends on the different ethnic groups studied. The incidence of occurrence of natal and neonatal teeth is 85% in mandibular incisors, 11% in maxillary incisors, 3% in mandibular canines and molars and only 1% in maxillary posterior regions. More than 90% of natal and neonatal teeth are prematurely erupted whereas less than 10% are supernumerary. There was no difference in prevalence between males and females. However Kates et al in 1984 reporting a 66% proportion for females against a 31% proportion for males.⁴⁻⁶

Clinical Presentation

Morphologically, the natal/neonatal teeth are poorly developed and are small and cone shaped. They have a yellowish-brown or whitish opaque color and have a hypoplastic enamel or dentin.⁷ Occasionally they may be of normal size and shape. Spouge and Feasby in 1966 clinically classified natal/neonatal in:

Mature: When they are fully developed in shape and comparable in morphology to the primary teeth.

Immature: When their structure and development are incomplete.⁸

The term mature may suggest that the tooth is well-developed compared to the remainder of the primary dentition and that its prognosis is relatively good. In contrast, the term immature assumes the presence of an

incomplete structure and implies a poorer prognosis for the tooth in question.⁹ Recently in 1997 Hebling classified natal teeth into 4 clinical categories.¹⁰

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. Edema of gingival tissue with an unerupted but palpable tooth.

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

Etiology

Etiology of natal and neonatal teeth is still unknown due to disturbance of biological chronology. A number of factors favouring the occurrence of these teeth have been described in the literature. These factors are:

- Hereditary transmission of a dominant autosomal gene.^{7,11}
- Endocrine disturbances: May be because of excessive secretion of pituitary, thyroid, or gonads.¹²
- Natal and neonatal teeth could be erupt due to osteoblastic activity within the area of the tooth germ.⁵
- Most commonly superficial positioning of tooth germ.¹³
- Poor maternal health, endocrine disturbances, febrile episodes during pregnancy and congenital syphilis.¹²
- Infection or Malnutrition.¹⁴
- Nutritional deficiency, e.g., Hypovitaminosis.¹⁵
- Environmental factors such as Polychlorinated biphenyls (PCBs), polychlorinated dibenzo-dioxins (PCDDs), and dibenzofurans (PCDFs) seem to cause the eruption of natal teeth.¹⁶
- Few syndromes are reported to be associated with natal teeth and neonatal teeth.⁴
- Ellis-VanCreveld (Chondroectodermal Dysplasia),
- Pachyonychia
- Congenital (Jadassohn-Lewandowsky),
- Hallermann-Streiff (Oculomandibulodyscephaly with Hypotrichosis),
- Rubinstein-Taybi, Steatocystoma Multiplex,
- Pierre-Robin,
- Cyclopia, Pallister-Hall,
- Short Rib-Polydactyly (type II),
- Wiedemann-Rautenstrauch (Neonatal Progeria),
- Cleft Lip and Palate,
- Pfeiffer,
- Ectodermal Dysplasia,
- Craniofacial Dysostosis,

- Multiple Steatocystoma,
- Sotos syndrome.

Histological Presentation

Histological investigations have demonstrated that most of the crowns of natal and neonatal teeth are covered with hypoplastic enamel with varying degrees of severity,¹⁶ absence of root formation, ample and vascularized pulp, irregular dentin formation, and lack of cementum formation.^{4,11}

Diagnosis

Natal teeth are usually diagnosed based on a complete history and physical examination of infant. A radiographic verification of the relationship between a natal and/or neonatal tooth and adjacent structures, nearby teeth, and the presence or absence of a germ in the primary tooth area would determine whether it belongs to the normal dentition or supernumerary, so that indiscriminate extractions would be performed. Bohn nodules and cysts of the dental lamina differentiated from natal and neonatal teeth by radiographic examination. The maintenance of natal and neonatal teeth of the normal dentition is important, since the premature loss of a primary tooth may cause a loss of space and collapse of the developing mandibular arch,¹⁰ with consequent malocclusion in permanent dentition.

Complications

1. Ulceration to the nipple of the mother and interference with breast feeding.
2. Potential risk of the infant inhaling the tooth into his/her airway and lungs if the tooth becomes dislodged due to its great mobility.
3. Ulceration to ventral surface of the tongue: this condition was first described by Caldarelli in 1857 in association with general organ failure in a child, followed by death. Riga and Fede histologically described the lesion, which then started to be called Riga-Fededisease.¹⁷
4. Difficulty in feeding or refusal to feed due to pain.

TREATMENT AND MANAGEMENT

Natal and Neonatal teeth are associated with some superstitions so proper management of these teeth are essential both from social and clinical point of view. Most of the time these are ignored by the paediatricians due to lack of awareness, as they are associated with negative culture attitudes good parental counselling and vigilant management is required in relation to child protection. So both the paediatrician and paediatric dental specialists should be involved in the supervision or treatment of patients with natal and neonatal teeth.

In confronting a typical variation in the newborn's oral cavity, pediatric dentist must decide between "early treatment" and the other extreme "should never be treated." Before you are taking decision of maintaining or extraction of these teeth some factors should be considered, such as implantation and degree of mobility, interference with breast feeding, inconveniences during suckling, possibility of traumatic injury, and whether the tooth is part of the normal dentition or is supernumerary. If the erupted tooth is diagnosed as normal dentition tooth, the maintenance of these teeth in the mouth is the first treatment option, unless this would cause injury to the infant or breastfeeding mother.^{9,18} If these teeth are not well implanted and highly mobile with increases risk of aspiration they should be extracted. Although many investigators have mentioned the possibility of aspiration of these teeth, this risk, in reality, is an unlikely possibility since there are no reports in the literature of the actual occurrence of aspiration. Bigeard et al in 1996 suspected that this tooth was swallowed, indicating the possibility of aspiration. On the basis of the report by the parents of a 28-day old baby of the sudden disappearance of a natal tooth.¹² Smoothing or grinding of the incisal edges of the teeth was advocated by Allwright in 1996 and Martins et al. in 1998^{19,20} to prevent wounding of the maternal breast during breast feeding. To prevent the injury to the maternal breast, feeding splint was the option reported by Bjuggren in 1973.²¹ Goho in 1996 treated natal teeth by covering the incisal margin with composite resin.²² Tomizawa et al in 1989 reported two cases of treatment of Riga-Fede disease by covering the incisal margin with photopolymerizable resin, which aided rapid healing of the ulcers.²³ Extraction of these teeth can be done with a forceps or even with the fingers without any difficulties. The prophylactic administration of vitamin K (0.5-1.0 mg i.m.) is advocated because of the risk of hemorrhage as the commensal flora of the intestine might not have been established until the child is 10 days old and since vitamin K is essential for the production of prothrombin in the liver.²⁴ If extraction is carried out, it is important and necessary to ensure that the underlying dental papilla and Hertwig's epithelial root sheath are removed by gentle curettage as root development can continue if these structures are left in situ.

CONCLUSION

Paediatric dentists should make every effort to educate the parents and the paediatrician on the preferred treatment for the natal teeth. A proper clinical and radiographic examination is necessary for differential diagnosis of either the teeth are of normal dentition or supernumerary and bhon nodules and cyst of dental lamina. Teeth of the normal

dentition, when supposed to be matured, they should be preserved and maintained in healthy conditions in the baby's mouth using all possible clinical resources and when the teeth are supernumerary, they should be extracted. Extraction should be done only by the paediatric dentist to avoid any undue trauma to the underlying tissue. Periodic follow-up by a paediatric dentist to ensure preventive oral health is very essential. Hence, to avoid any further complication, early diagnosis and adequate treatment should be a prime concern in the management of natal and neonatal teeth.

REFERENCES

1. Massler M, Savara BS. Natal and neonatal teeth: a review of 24 cases reported in the literature. *J Pediatr.* 1950;36(3):349-359.
2. Zhu J, King D. Natal and neonatal teeth. *ASDC J Dent Child.* 1995;62:123-128.
3. Alvarez MP, Crespi PV, Shanske AL. Natal molars in Pfeiffer syndrome type 3: A case report. *J Clin Pediatr Dent.* 1993;18(1):21-24.
4. Bodenhoff J, Gorlin RJ. Natal and neonatal teeth: folklore and fact. *Pediatr* 1963; 32(6):1087-1093.
5. Kates G.A., Needleman H.L., Holmes L.B. Natal and neonatal teeth: a clinical study. *J Amer Dent Assoc.* 1984; 109(3):441-443.
6. Gorlin RJ, Goldman HM, Thoma K. In: *Patologia Oral.* 4th Ed. Barcelona: Salvadore; 1973: pp 163-166.
7. Anegundi RT, Sudha P, Kaveri H, Sadanand K. Natal and neonatal teeth: A report of four cases. *J Indian Soc Pedod Prev Dent.* 2002;20(3):86-92.
8. Spouge JD, Feasby WH. Erupted teeth in the newborn. *Oral Surg Oral Med Oral Pathol* 1966;22(2):198-208.
9. Chow MH. Natal and neonatal teeth. *JADA.* 1980;100(2):215-216
10. Hebling J, Zuanon ACC, Vianna DR. Dente Natal-A case of natal teeth. *Odontol Clin.* 1997;7(1):37-40.
11. Hats H. Natal and neonatal teeth: Histological investigation in two brother. *Oral Surg Oral Med Oral Pathol.* 1957;10:509-521.
12. Bigeard L, Hemmerle J, Sommermater JI. Clinical and ultra structural study of the natal tooth: enamel and dentine assessments. *J Dent Child.* 1996;63(1):23-31.
13. Ooshima T, Mihara J, Saito T, Sobue S. Eruption Of Tooth-Like Structure Following The Exfoliation Of Natal Tooth: Report Of Case. *ASDC J Dent Child.* 1986;53(4):275-278.
14. Leung AKC. Natal teeth. *Am J Dent Child* 1986;140(3):249-251.
15. Anderson RA. Natal and neonatal teeth: histological investigation of two black females. *J Dent Child.* 1982;49(4):300-303.
16. R. D. McDonald, D. R. Avery, and J. A. Dean, *Dentistry for the Child and Adolescent*, Mosby, St. Louis, Mo, USA, 8th edition, 2004.
17. Amberg S. Sublingual growth in infants. *Am J Med Sci.* 1903;126(2):257-269.
18. Robson C, Farli A, Parecida CB, Dione DT, Wanda TG. Natal and Neonatal teeth: Review of the literature. *J Pedo Dent.* 2001;23:158-62.
19. Allwright WC. Natal and neonatal teeth. A review of 50 cases. *J India Soc Pedo Prev Dent* 1996;21-3.
20. Martins ALCF et al. Erupção dentária: dentes decíduos e sintomatologia desse processo. In: Corrêa MSNP. *Odontopediatria Primeira Infância.* São Paulo: Santos. 1998:117-129.
21. Bodenhoff J. Natal and neonatal teeth. *Dental Abstr* 1960;5:485-8.
22. Goho C. Neonatal sublingual traumatic ulceration (Rega - Fede disease): Reports of cases. *J Dent child.* 1996;63:362-364.
23. Tomisawa M, Yamada Y, Tonouchi K, Watanabe H, Noda T. Treatment of Riga-Fede's disease by resin-coverage of the incisal edges and seven cases of natal and neonatal teeth. *Shoni-Shikagaku-Zasshi* 1980;27:182-190
24. Leone RC, Araújo MCK. Doença hemorrágica do recém-nascido. In: *Pediatriabásica.* 8a Ed. São Paulo: Sarvier. 1994; 430-431.

How to cite this article: Swati Chowdhary, Sandeep Tandon. "Congenital teeth: Superstition and Reality – A Case Report and Review of Literature". *International Journal of Scientific Study.* 2014;1(5):53-56.

Source of Support: Nil, **Conflict of Interest:** None declared.