

Case Report

Demystifying Natal Teeth: A Case Report

Nilima Sharma, Sabina Khan

Abstract

Hypo-mineralized structures are found intra orally in infants at the time of birth or during the first month after birth. These are thus termed as natal and neonatal teeth respectively. Often this is a cause of concern for the parent as they are unaware that such a condition even exists. Also, folklore is attached to the presence of teeth in an infant; some consider it an indication of good luck whereas others take it as an ill omen. This case report is an attempt to unravel the incidence, etiology, complications, and treatment of natal teeth.

Keywords: Complications; Natal Teeth; Tooth Extraction; Syndromes

Nilima Sharma, Sabina Khan. Demystifying Natal Teeth: A Case Report. International Journal of Oral & Maxillofacial Pathology; 2015;6(1):26-29. ©International Journal of Oral and Maxillofacial Pathology. Published by Publishing Division, Celesta Software Private Limited. All Rights Reserved.

Introduction

Natal teeth are teeth that are already present at the time of birth. They are different from neonatal teeth, which grow in during the first 30 days after birth.¹ The literature reports varying incidence of natal teeth; as low as 1:30,000 to as high as approximately 1:1000 live births.^{2,3} They are three times more common than the neonatal teeth.⁴ The most commonly affected teeth are the lower primary central incisors.⁵ Tsai et al.⁶ reported that natal teeth among cases with cleft lip and palate (CLP) were more often observed in the premaxillary and maxillary segments, unlike the cases without cleft. Natal teeth usually occur in pairs. The eruption of more than two natal teeth is rare. The majority of natal teeth represent the early eruption of normal deciduous dentition. Less than 10% of natal teeth are supernumerary. Natal teeth might resemble normal primary dentition in size and shape; however, the teeth are often smaller, conical and yellowish, and have hypo-plastic enamel and dentin with poor or absent root formation.¹ A dental roentgenogram is indicated to differentiate the premature eruption of deciduous tooth or large soft tissue enlargement.⁷ Our case report revisits the natal teeth along with the histomorphometric report illustrating the histologic picture of the same.

Case Report

A two-day old baby girl was admitted in the natal intensive care Unit of Hakeem Abdul Hameed centenary Hospital with the chief complaint of jaundice. A dental referral was sought for teeth like structures in the lower jaw. Oral examination revealed pre-deciduous dentition in relation to mandibular

anterior region.(Figure 1a) They were reported being present at the time of birth. Medical history was non-contributory and the childbirth was a normal delivery in the same hospital. She was one of the twin girls delivered by the mother of Indian origin and the father was of African origin. The other twin was healthy and her oral examination was non-contributory. Intra-orally two calcified structures resembling teeth were present in the mandibular anterior region. They were mobile on examination. A written informed consent was taken from the parents and the teeth were extracted under local anesthesia after two weeks of birth. The extracted teeth were sent for histopathologic examination. The patient was kept on regular follow-up. Histologic findings reported the presence of odontoblastic layer overlying the dental pulp tissue with dentine layer and a hypo mineralized enamel being noticed.(Figure 1b & c)

Discussion

Natal teeth have been reported as early as 59 B.C.⁸ Leung studied 50,892 infants delivered over 17 years and found the incidence of natal teeth to be 1:3, among 392 live births. The condition is slightly more common in females. There is a racial variation in the incidence; the occurrence more common among infants of some American Indian tribes.¹ Our case had African-Indian parentage. Infection, febrile states, trauma, malnutrition, superficial position of the tooth germ, hormonal stimulation and maternal exposure to environmental toxins has been implicated as causative factors.²

Natal teeth are isolated incidents, but literature also reports their association with certain syndromes such as reactive fibrous hyperplasia,⁹ congenital hydrocephalus, congenital glaucoma Walker Warburg

syndrome,¹⁰ bilateral mandibular hamartomas,¹⁰ pyogenic granuloma,¹¹ peripheral ossifying fibroma, eruption cyst,⁹ gingival fibrous hamartoma.¹² bifid tongue and deaf mutism.¹³

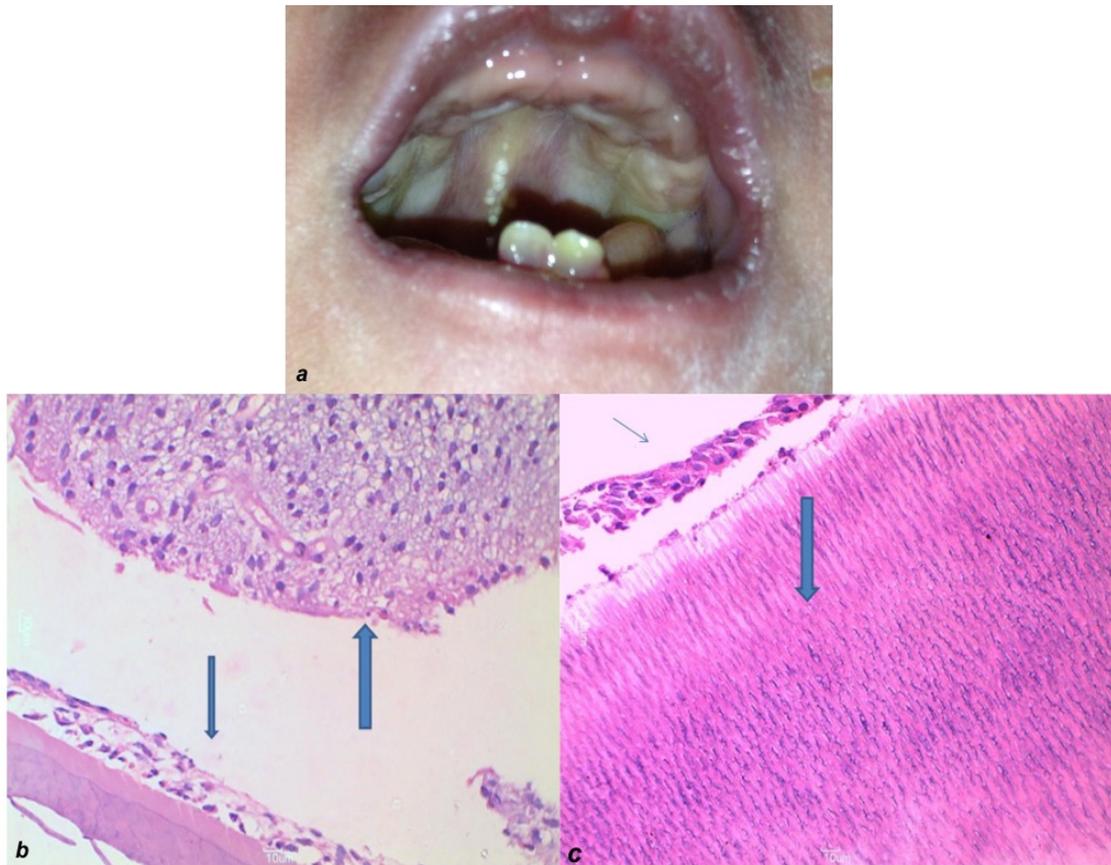


Figure 1: Intra oral picture showing natal teeth (a). Microphotograph shows layer of odontoblast (thin arrow) and underlying dental pulp (thick arrow) [H&E stain, 10x] (b) and dense calcified layer i.e dentine (thick arrow) below which odontoblastic layer (thin arrow) [H&E stain, 40x] (c).

The presence however is not essentially an indication of any health problem; nevertheless, a thorough clinical examination is essential for the association with certain syndromes as cited above. Also soft tissue anomalies of the oral cavity exist and need to be ruled-out.

Most commonly affected teeth are the mandibular central incisors (85%) followed by maxillary incisors (11%), mandibular canine and molars (3%).¹⁴ The strong predilection of mandibular central incisors is consistent with the normal eruption of deciduous teeth.^{14,15}

Depending on the appearance in the oral cavity they can be classified as:^{9,16}

- a. Shell-shaped crown poorly fixed to the alveolus by gingival tissue and absence of a root.

- b. Solid crown poorly fixed to the alveolus by gingival tissue and little or no root.
- c. Eruption of the incisal margin of the crown through the gingival tissues.
- d. Edema of gingival tissue with an unerupted but palpable tooth.

Depending on the degree of maturity they can be classified as:¹⁶

- a. Mature is one which is nearly or fully developed and has relatively good prognosis
- b. Immature, on the other hand, implies a tooth with incomplete or substandard structure with poor prognosis.

Histologically majority of natal teeth have dysplastic or hypo mineralized enamel, irregular dentin and osteodentin in the cervical portions, and interglobular dentin in the coronal portion. Both Hertwigs epithelial

root sheath and cementum may be absent. There is often an increase in the number of dilated blood vessels in the pulp. Root formation is often incomplete.¹⁷ Histologic findings in our case also reported odontoblastic layer overlying the dental pulp tissue. Dentine layer and a hypo-mineralized enamel were noticed.

The publications in the last 10 years on natal teeth (Table 1) have managed the cases by teeth extraction; some due to the risk of

aspiration and others due the laceration on the ventral surface of the teeth due to proximity to the lower anterior (natal teeth). All had natal teeth erupted in the lower mandibular anterior region. None of these studies reported the histopathologic findings of the same. Complications that arise from the presence of natal teeth include discomfort during suffering, laceration of mother's breasts, sublingual ulceration (Riga-Fede Disease), with resultant feeding refusal, swallowing or aspiration.²

Author / Year	Gender	Site	Number of Natal Teeth	Management
Roopa & Sudha 2009 ¹⁸	Female	Mandibular anterior region	2	Teeth Extraction
Khandelwal et al 2013 ¹⁹	Female	Mandibular anterior region	2	Teeth Extraction
Senanayake & Karunanayake 2014 ²⁰	Male child with downs syndrome	Mandibular anterior region	2	Teeth Extraction
Volpato et al 2015 ²¹	Female	Mandibular anterior region	2	Tooth extraction of 1 tooth and maintenance of the other.
Ghadah A. Malki et al 2015 ²²	Female child	Mandibular anterior region	1	Tooth Extraction

Table 1: Overview of Natal Teeth case report in last 10 years

Tooth extraction was indicated if the tooth is supernumerary or excessively mobile. It is advised to conduct the tooth extraction at least 10 days post delivery as during the first 10 days after delivery, the commensal intestinal bacterial flora may be ineffective in Vitamin K production, which plays a major role in prothrombin synthesis. The risk of hemorrhage due to hypo-prothrombinemia is present. To avoid any complications, prothrombin blood tests should be reviewed before any intervention.⁷ If the tooth does not interfere with breastfeeding and is otherwise asymptomatic, no treatment is advocated.

Acknowledgement

We would like to thank the staff members from the Department of Pathology for their support.

Author Affiliations

1.Dr.Nilima Sharma, Associate Professor,
2.Dr.Sabina Khan, Associate Professor,
Department of Pathology, HIMSR & HAH Centenary Hospital, Jamia Hamdard, New Delhi-110062.

References

1. Leung AK, Robson WL. Natal Teeth: A Review. *J Natl Med Assoc.* 2006;98(2):226-8.
2. Cunha RF, Boer FA, Torriani DD, Frossard WT. Natal and neonatal teeth: Review of the literature. *Pediatr Dent.* 2001;23:158-62.
3. Alaluusua S, Kiviranta H, Leppäniemi A, Hölttä P, Lukinmaa PL, Lope L, et al. Natal and neonatal teeth in relation to environmental toxicants. *Pediatr Res.* 2002;52:652-5.
4. Alvarez MP, Crespi PV, Shanske AL. Natal molars in Pfeiffer syndrome type 3: A case report. *J Clin Pediatr Dent.* 1993;18:21-4.
5. Zhu J, King D. Natal and neonatal teeth. *ASDC J Dent Child.* 1995;62(2):123-8.
6. Tsai TP, Huang CS, Huang CC, See LC. Distribution patterns of primary and permanent dentition in children with unilateral complete cleft lip and palate. *Cleft Palate Craniofac J.* 1998;35:154-60.
7. Basavanthappa NN, Kagathur U, Basavanthappa RN, Suryaprakash ST. Natal and neonatal teeth: A retrospective study of 15 cases. *Eur J Dent.* 2011;5:168-72.
8. Seminario AL, Ivancaková R. Natal and neonatal teeth. *Acta Medica (Hradec Kralove).* 2004;47(4):229-33.

9. 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.
10. Sigal MJ, Mock D, Weinberg S. Bilateral mandibular hamartomas and familial natal teeth. *Oral Surg Oral Med Oral Pathol.* 1988;65:731–5.
11. Muench MG, Layton S, Wright JM. Pyogenic granuloma associated with a natal tooth: Case report. *Pediatr Dent.* 1992;14:265–7.
12. Oliveira LB, Tamay TK, Wanderley MT, Rodrigues RM, Barboza CA, de Souza SO. Gingival fibrous hamartoma associated with natal teeth. *J Clin Pediatr Dent.* 2005;29:249–52.
13. Darwish S, Sastry RH, Ruprecht A. Natal teeth, bifid tongue and deaf mutism. *J Oral Med.* 1987;42:49–53.
14. King NM, Lee AM. Prematurely erupted teeth in newborn infants. *J Pediatr.* 1989;2013:807–809.
15. Bodenhoff J, Gorlin RJ. Natal and neonatal teeth: folklore and fact. *Pediatr* 1963;2013:1087–1093.
16. Aneundi RT, Sudha P, Kaveri H, Sadanand K. Natal and neonatal teeth: A report of four cases. *J Indian Soc Pedo Prev Dent.* 2002;20:86–92.
17. To EW. A study of natal teeth in Hong Kong Chinese. *Int J Paediatr Dent.* 1991;1(2):73-6.
18. Roopa S Rao, Sudha V Mathad. Natal teeth: Case report and review of literature. *J Oral Maxillofac Pathol.* 2009;13(1):41–46.
19. Khandelwal V, Nayak UA, Nayak PA, Bafna Y. Management of an infant having natal teeth. *BMJ Case Rep.* 2013 Jun 3;2013. pii: bcr2013010049. doi: 10.1136/bcr-2013-010049.
20. Manouri P Senanayake, Irantha Karunaratne. Persistent lingual ulceration (Riga-Fede disease) in an infant with Down syndrome and natal teeth: a case report. *J Med Case Rep.* 2014;8:283.
21. Volpato LE, Simões CA, Simões F, Nespolo PA, Borges ÁH. Riga-Fede Disease Associated with Natal Teeth: Two different approaches in the Same Case. *Case Rep Dent.* 2015;2015:234961.
22. Ghadah A. Malki, Emad A. Al-Badawi, Mohammad A. Dahlan. Natal Teeth: A Case Report and Reappraisal. *Case Rep Dent.* 2015;14758.

Corresponding Author

Dr. Nilima Sharma,
Associate Professor,
Department of Dentistry,
HIMSR & HAH Centenary Hospital,
Jamia Hamdard, New Delhi-110062
Email: nilimasharma@yahoo.com

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