

# Natal Tooth Associated with Fibrous Hyperplasia – A Rare Case Report

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## ABSTRACT

Eruption of tooth at about 6 months of age is a significant stage in child's life and is an emotional event for parents. However, a tooth present in the oral cavity of newborn can lead to a lot of delusions. Natal and neonatal teeth are of utmost importance not only for a dentist but also for a paediatrician due to parent's anxiety, folklore superstitions and numerous associated complications with it. This paper reports a rare case, wherein a natal tooth has led to the development of a reactive fibrous hyperplasia in an 8-week-old infant.

**Keywords:** Infant, Pedunculated growth, Reactive fibrous hyperplasia

## CASE REPORT

An 8-week-old female infant was brought by the parents to the hospital in the Department of Pedodontics and Preventive dentistry, with a complaint of a growth in the lower front region of the mouth. The medical history of the child revealed that she was healthy, born of a normal full term delivery with no complications and the only unexpected finding at birth was a mandibular anterior natal tooth. The parents did not consult any dentist as neither the mother nor the child had any problem during feeding. However, when the child was around 6–7 wk old, a growth was noticed around the natal tooth which gradually increased in size. Oral examination revealed a pedunculated growth, measuring approximately 0.5 x 1.3 cm and the natal tooth in the mandibular anterior region was embedded within this growth [Table/Fig-1]. The mass was firm in consistency, pink in colour and had a smooth surface. The radiograph confirmed that the natal tooth belonged to the complement of normal primary dentition (71) and was not a supernumerary tooth [Table/Fig-2].

It was decided to excise the lesion after obtaining informed consent from the parents. Hematological examinations including full blood count and clotting profile were done before surgery and all the values were within normal range. A paediatrician was consulted and 1 ml of vitamin K was administered intramuscularly to prevent excessive haemorrhage. Under local anaesthesia which was well tolerated by the patient, a 3-0 silk sutures were placed and the mass was excised by tying the knot of the suture around it. This method prevented any kind of bleeding that could ensue upon removal of the mass [Table/Fig-3]. The mass [Table/Fig-4] was removed and was sent for histopathological examination which on grossing showed an embedded tooth within the soft tissue. The haematoxylin and eosin section [Table/Fig-5] revealed the presence of stratified squamous hyperplastic epithelium with long rete ridges and underlying fibrocellular connective tissue showed collagen fibres running in different directions, cells like fibroblasts, chronic

inflammatory cells like lymphocytes and plasma cells and few blood vessels. The inflammation was seen to distort the epithelial pegs and was primarily fibrous in nature. Based on these histopathologic features, the lesion was diagnosed as a reactive fibrous hyperplasia. Hard tissue on decalcification and haematoxylin and eosin staining shows enamel rods with a bizarre pattern of atypical dentinal tubules [Table/Fig-6].

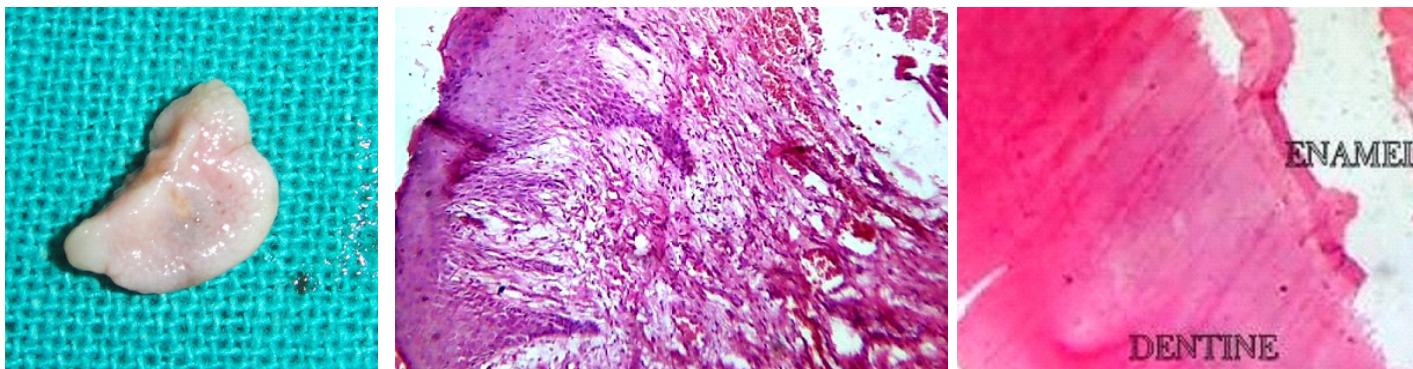
Postoperatively, the healing was uneventful and the suture was removed after one week. Patient was recalled after a month. No complication or recurrence was reported.

## DISCUSSION

The growth and development of a child from conception through the first years of life is marked by a number of changes [1]. Parents are always very anxious about the first things of their child's life such as first crawling, first tooth, first words, toddler walk, etc. But usually not all the early happenings in the child's life are easily appreciated and one such thing that sometimes leads to a lot of delusions is the newborn with the new teeth at birth or too early [2]. Tooth eruption into the oral cavity pursues a chronological order that corresponds to the period that have been established in the literature, however small variations may be present depending upon hereditary, endocrine and environmental factors [1,3]. Tooth eruption at about 6 months of age is a significant phase in terms of functional and psychological changes in the child's life [1]. The teeth which are present at birth are termed as natal teeth whereas teeth that emerge through the gingiva during the first 30 days of life are termed as neonatal teeth [4]. These teeth were previously designated as congenital teeth, fetal teeth, early infancy teeth, predeciduous teeth, dentitia praecox, premature and precociously teeth [5]. However Massaler and Savara, taking the time of eruption as the reference guide called these teeth as natal and neonatal teeth [1,5,6]. Mhaske S studied the literature and reported the incidence of natal and neonatal teeth ranges from



[Table/Fig-1]: Preoperative view of lesion [Table/Fig-2]: Radiographic view showing missing central and engraved in mass [Table/Fig-3]: Postoperative view shows the excised lesion with minimal bleeding



**[Table/Fig-4]:** Excised specimen **[Table/Fig-5]:** The haematoxylin and eosin stained section revealed picture of reactive fibrous hyperplasia showing hyperplastic stratified squamous epithelium with long rete ridges and underlying fibrocellular connective tissue showing inflammatory cells like lymphocytes and plasma cells and few blood vessels **[Table/Fig-6]:** Photomicrograph of natal tooth shows enamel rods with a bizarre pattern of atypical dentinal tubules

1:2,000 to 1:3,500 [7]. In this present case tooth was present at the time of birth thus designated as natal tooth and this tooth was engulfed by a soft tissue growth at around 8 weeks of age which makes this case a unique. This present case is reported to be the 2<sup>nd</sup> case in the literature available to the best of our knowledge. Singh et al., [8] also reported a similar case in a four and a half month old infant.

Natal tooth associated with other benign reactive lesions has been described in the literature. Muench MG [9] reported a case of pyogenic granuloma in which soft tissue growth appeared after removal natal tooth by parents with their fingers a few days after birth. Kohli K et al., [10] reported a case of neonatal tooth associated with peripheral ossifying fibroma. Singh RK et al., [11] reported a case of dental lamina cyst and Cizmeci MN [12] described a case of Bohn's nodules which was mistaken by caregivers as natal tooth. Dental clinician should be able to distinguish these cystic lesion from natal and neonatal teeth as these lesions are self limiting and do not require any treatment.

The presence of natal teeth has been associated with various syndromes in the past like chondroectodermal dysplasia (Ellis Van Creveld syndrome) or Pacyonychia congenital [3]. However, no polydactyly or history of congenital heart disease or any cleft palate was observed (characteristic of Ellis Van Creveld syndrome). Also, no features of palmar-plantar hyperkeratosis or any thick white plaques on the mucosa were found (typical features describing pachyonychia congenita). The most acknowledged aetiology behind the tooth eruption before the chronological period is considered to be the superior placement of tooth germ [3] whereas literature also proposes role of inheritance as dominant autosomal trait, endocrine factors and poor maternal health. Another hypothesis suggests that resorption of overlying jaw bone either excessive or increased may be the resultant factor in early eruption of the natal or neonatal teeth [7].

The present case suggests that the development of reactive fibrous hyperplasia may be due to microtrauma caused by eruption of the tooth [9] and chronic low grade irritation to the gingival tissues from the natal tooth [8]. The mass was excised due to its gradual increase in size and difficulty in feeding. The clinician should assess the risk of haemorrhage due to the hypoprothrombinemia commonly present

in newborns [7]. In the present case hematological examinations including clotting profile was done and 1 ml of vitamin K was administered prophylactically to avoid the risk of hemorrhage. Early diagnosis and treatment of these teeth are of utmost importance due to risk of aspiration, irritation and trauma to soft tissues and even compromises child's ability to feed which may result in nutritional deficiency in infant.

## CONCLUSION

Natal and neonatal teeth are a rare condition associated with complications like Riga-fade disease and nursing problems. Now-a-days these teeth are of great concern to parents as well as health professionals because of refusal of child to take feed due to pain associated with suckling and the risk of aspiration and being swallowed during nursing because of their great mobility. Hence, to avoid any complications, early diagnosis and adequate treatment should be of primary concern in the management of natal and neonatal teeth.

## REFERENCES

- [1] Cunha RF, Boer FA, Torriani DD, Frossard WTG. Natal and neonatal teeth: review of the literature. *Pediatr Dent*. 2001;23:158-62.
- [2] Maheswari NU, Kumar BP, Karunakaran, Kumaran ST. Early baby teeth: Folklore and facts. *J Pharm Bioallied Sci*. 2012;4(2):S329-33.
- [3] Verma KG, Verma P, Singh N, Sachdeva SK. Natal tooth in a seven months premature male child: A rare case report. *Arch Int Surg*. 2013;3:182-84.
- [4] Kates GA, Needleman HL, Holmes LB. Natal and neonatal teeth: A clinical study. *J Am Dent Assoc*. 1984;109:441-43.
- [5] Mayhall JT. Natal and Neonatal Teeth Among the Tlinget Indians. *J Dent Res*. 1967;46:748-49.
- [6] Anegundi RT, Sudha P, Kaveri H, Sadanand K. Natal and neonatal teeth: A report of four cases. *J Indian Soc Pedod Prev Dent*. 2002;20:86-92.
- [7] Mhaske S, Yuwanati MB, Mhaske A, Ragavendra R, Kamath K, Saawarn S. Natal and Neonatal Teeth: An Overview of the Literature. *ISRN Pediatrics*. 2013;1-11.
- [8] Singh S, Reddy VV, Dhananjaya G, Patil R. Reactive fibrous hyperplasia associated with a natal tooth. *J Indian Soc Pedod Prev Dent*. 2004;22:183-86.
- [9] Muench MG, Layton S, Wright JM. Pyogenic granuloma associated with a natal tooth: Case report. *Pediatr Dent*. 1992;14(4):265-67.
- [10] Kohli K, Christian A, Howell R. Peripheral ossifying fibroma associated with a neonatal tooth: Case Report. *Pediatr Dent*. 1998;20(7):428-29.
- [11] Singh RK, Pandey RK, Singh K. Dental lamina cysts in a newborn infant. *BMJ Case Rep*. 2012;doi:10.1136/bcr-2012-007061.
- [12] Cizmeci MN, Kanburoglu MK, Uzun FK, Tatli MM. Neonatal tooth in a preterm infant. *Eur J Pediatr*. 2013;172:279.

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