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Natal Teeth: A Rare Case Report and Review of Literature.

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ABSTRACT

Presence of teeth at birth of a newborn baby is a rare event. A 15 day old, female baby, presented to us with two lower central incisior teeth. One tooth was loose mobile and was extracted. The other one was very small, just seeing as a white dot above gingival, fixed, immobile and was kept undisturbed with regular followup. The purpose of this article is to know the fact about natal teeth regarding its epidemiology, etiology, clinical presentation, complication and management.

Keywords: natal teeth, mandibular incisor, neonatal teeth.

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INTRODUCTION

Eruption of teeth in a baby is a very special event for both child and their parents. For a child, it demonstrates a developmental milestone and for the parents, it's a emotional and satisfying moment that their baby doing well. Sometimes teeth present at the time of delivery (natal teeth) or erupted within first month (neonatal teeth).This situation is cumbersome both for baby and their parents and it is associated with many myth and complication.

CASE REPORT

A 15 day old female baby come to us with complain of two teeth in lower mandible since birth. Baby was delivered by emergency LSCS (in view of failed induction) in a primigravida, full term mother. Baby birth weight was 2.9kg, cried immediately after birth and having hospital stay uneventful, was on exclusive breast milk. Family history revealed that her grandmother had two teeth at the time of birth; but she had it on upper gingival that is maxillary incisor. Oral examination revealed two mandibular incisior teeth; the right one was bigger, had great mobility and poorly formed in respect of normal primary teeth. Left one was just visible as white dot above gingival and was fixed (Figure-1). Any other abnormality was not detected in oral cavity and systemic examination was within normal limits. Baby was referred to the Centre for Dental Education & Research, AIIMS, New Delhi, where extraction of right mandibular incisor was done under topical anaesthesia fearing that that may be get aspirated or swallowed. Left mandibular incisior was kept untouched with regular follow-up. The patient was re-evaluated 2 day later in paediatric opd, recovery was uneventful and kept on regular follow-up in both paediatric and dental opd.

Figure 1: 15 day old infant showing mandibular inciors

DISCUSSION

Eruptions of teeth occurs around six month of life and that follows a chronology with minor variations because of hereditary, endocrinal and environmental factors.[1] Teeth which present at the time of delivery are called Natal teeth and which erupted within 30 days of delivery is called Neonatal teeth.[2] This nomenclature is accepted and utilised worldwide although many term also given in past such as congenital teeth, foetal teeth, predecidual teeth, and dentitia praecox.

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Historical perspective

Natal teeth have been a subject of curiosity among peoples since beginning and have too many associated folklore and misconceptions. Titus Livius (59 B.C.) reported natal teeth during Roman times and considered it to be a predictor of disastrous events.[3] Caius Plinius Secundus (23 B.C.) believed that a splendid future awaited male infants with natal teeth, while it was a bad omen for girls.[3] In many African tribes children born with teeth were murdered soon after birth because they were believed to bring misfortune. In China, the presence of teeth at birth was considered a bad omen by the family.[4] 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.[5]

Incidence and prevalence

Natal and neonatal teeth are a rare phenomena; incidence varies from 1:2000 t0 1:3500 live births.[6-8] Prevalence is 1:700 to 1:30,000 live births as reported in different studies.[9] It is slightly more common in females.[6,7] Natal teeth are more frequent, approximately three times more common than neonatal teeth, with the most common localization being the mandibular region of central incisors (85%), followed by maxillary incisors (11%), mandibular cuspids or molars (3%), and then maxillary cuspids or molars (1%).[10]

Etiology

Etiology is still unknown. It has been related to several factors, such as superficial position of the germ, infection or malnutrition, febrile states, eruption accelerated by febrile incidents or hormonal stimulation, hereditary transmission of a dominant autosomal gene, osteoblastic activity inside the germ area related to the remodeling phenomenon, and hypovitaminosis.[11-14]

Similar condition may be associated with some systemic condition or syndrome like Ellis-van Creveld (chondroectodermal dysplasia), pachyonychia congenita (Jadassohn-Lewandowsky), Hallerman-Streiff (occulo-mandibulo dyscephaly with hypotrichosis), Rubinstein-Taybi, steatocystoma multiplex, Pierre-Robin, cyclopia, Pallister-Hall, shoromert rib-polydactyly type II, Wiedeman-Rautenstrauch (neonatal progeria), cleft lip and palate, Pfeiffer, ectodermal dysplasia, craniofacial dysostosis, multiple steacystoma, Sotos syndrome, adrenogenital, epidermolysis bullosa simplex including van der Woude and Walker-Warburg Syndrome.[1,4,6,9,15]

Classification

Spouge and Feasby (1966) recognized the need to classify these teeth.[16] On the basis of clinical characteristics, these teeth were then classified into: Mature—when they are fully developed in shape and comparable in morphology to the primary teeth; immature—when their structure and development are incomplete. The term mature may suggest that the tooth

is well-developed compared to the remainder of the primary dentition and that it's 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.

Hebling (1997) recently classified natal teeth into 4 clinical categories: (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 gingival tissue; (d) edema of gingival tissue with an unerupted but palpable tooth.[17]

Clinical presentation

Infants generally presents with the following issues

- Potential risk of the infant inhaling the tooth into his/her airway and lungs if the tooth becomes dislodged during nursing, due to its great mobility.
- Ulceration to ventral surface of tongue (Riga-Fede disease)
- Difficulty in feeding or refusal to feed due to pain.
- Ulceration to the nipple of the mother and interference with breast feeding.
- Myth of bad omen or devil's incarnation.
- To know whether the tooth is part of the normal dentition or is supernumerary.

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/whitish opaque color. They are attached to a pad of soft tissue above the alveolar ridge, occasionally covered by mucosa and as a result have an exaggerated mobility, with the risk of being swallowed or aspirated, in most of the cases.[17,18] Bigeard *et al*. revealed that the dimensions of the crown of these teeth are smaller than those for the primary teeth under normal conditions.[19]

Pathology & Radiology

Histological first report on microscopic observation of natal and neonatal teeth was done by Howkins in 1932.[20] Histological investigations of natal teeth have been well detailed by Boyd and Miles.[11] The histological aspect shows a thin enamel layer, with varying degrees of mineralization, and/or hypoplastic to total absence of enamel in some regions. Friend *et al*. demonstrated that the alteration in amelogenesis was detected due to premature exposure of the tooth to the oral cavity, which resulted in metaplastic alteration of the epithelium of the normally columnar enamel to a stratified squamous configuration.[21]

Radiologically natal tooth consists of a hollow calcified cap of enamel and dentin without pulp tissue, rather like a celluloid crown in shape

Management

The management of natal teeth depends on multiple factors. If the tooth does not interfere with breastfeeding and is otherwise asymptomatic, no intervention is necessary.[6] Tooth extraction is indicated if the tooth is supernumerary or if the tooth is poorly implanted and excessively mobile, which is associated with a risk of aspiration.[4] Consultation with a pediatric dentist is strongly recommended, especially if tooth extraction is a consideration. Extraction of the tooth should be followed by curettage of the socket to prevent continued development of the cells of the dental papilla. Failure to curette the socket might result in the eruption of odontogenic remnants and necessitate future treatment.

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