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Abstract

Multiple natal and neonatal teeth are rare clinical conditions and become rarest when it encountered in a prematurely delivered baby. This paper documented a rarest case of multiple natal teeth (bilateral maxillary molars and mandibular central incisors) in a prematurely delivered (seven and half month) baby (boy) whom we examined in a NICU where he was admitted since birth. A fine blend of Scientific knowledge and clinical experience of the clinician as well as parents consent are very useful to tackle this kind of case.

Key Words Maxillary Molars, Natal Teeth, Premature Birth

INTRODUCTION

Eruption of the first tooth (mandibular deciduous central incisor) in the oral cavity normally occurs around sixth month of life in a child. Teeth that erupt prematurely have been designated as congenital teeth, foetal teeth, predeciduous teeth and dentitia praecox¹. Massler and Savara defined these teeth as natal and neonatal teeth². The teeth which are present at birth designated as natal while those erupt within 30 days after birth as neonatal teeth.

The prevalence of natal and neonatal tooth is considered to be low, varying from one case in every 2,000 to 3,000 births^{1,2}. The most common location for natal and neonatal teeth is the region of the lower central incisors^{1,4}. The 85% of natal and neonatal teeth found in the mandibular incisor region, 11% in maxillary incisor region, 3% in mandibular canine region, and 1% in maxillary canine and molar region². Natal teeth in maxillary molar region is a rare finding and this article represents rarest a case of bilateral natal maxillary molars and mandibular incisors in a prematurely delivered baby (seven and half month).

CASE REPORT

Problems with feeding and risk of airway and GIT obstruction because of the presence of multiple mobile natal teeth in oral cavity (Figure:1) in a 14 days old male muslim child was informed to the department of Pedodontics and preventive dentistry by concerned paediatrician of Kalingo Institute Of Medical Science, Bhubaneswar. The baby was admitted in NICU (neonatal intensive care unit) of KIMS since birth. On history, it was revealed that the child was prematurely delivered at seven and half month of pregnancy with scereian section. There was no evidence of systemic disease, congenital anomalies or syndromes. Infantogram (Figure:2) showed normal skeletal distribution. Mother gave a history of consanguineous marriage.

Intra oral examination revealed the presence of teeth in maxillary right and left posterior region, one in each side and also in mandibular incisor (two in number) region. Maxillary posterior teeth closely resembles 54 and 64

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Figure-1: Preoperative view



Figure-2 : Infantogram



Figure-3 : Just after extraction



Figure-4 : Extracted natal tooth

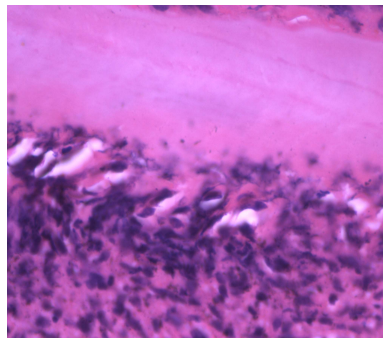


Figure-5: H/E section shows dentinoids

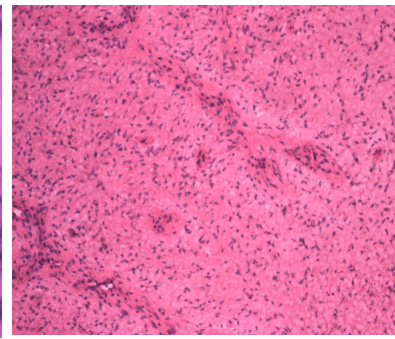


Figure-6 : H/E section shows numerous blood vessels and inflammatory cells

clinically. The right maxillary deciduous first molar was very mobile and was just hanging with the gingival tissue, causing problem with the endotracheal tube as the tooth can exfoliate any time and can enter into the trachea or oesophagus . Other teeth were not mobile and not causing any problem with other oral structures. Extraction of 54 was planned since it was immature, poorly formed, mobile and attached only with soft tissue.

TREATMENT

Removal of the tooth was performed when the patient was 21 days old. The surgery began with maintaining an absolute aseptic condition. At first infiltrative anesthesia (0.60 ml of 2% lidocaine – Alphacaine with epinephrine, DFL) was given very close to the tooth (54). The tooth was then delivered from its socket with the help of a fine beaked forcep. The tooth was rootless (figure:3). Curettage of the tissue at the base of the dental structure was then done. Finally, the wound was compressed with sterile gauze for 3 min to achieve hemostasis.

DISCUSSION

The occurrence of multiple natal teeth is very rare till date. Darwish et al. (1987) reviewed 50 studies from literature, involving 458 cases of natal teeth with only six cases reported having multiple natal teeth, four of these included molars. Most of them were associated with systemic disorders such as Ellis-Van Creveld syndrome or Hallerman-Streiff syndrome 5 . The etiology of this anomaly remains unknown, although it has been related to a series of factors, such as hyperactivity of osteoblastic cells within the tooth germs (bone remodeling) during the initiation or proliferation stage of development of tooth 1 , superficial positioning of the tooth germ, hereditary factors, endocrine disorders, hypovitaminosis and fever states^{2,6,7}.

According to the literature, extraction of a natal tooth is indicated only when the tooth is supernumerary, shows high mobility, or in risk of dislocation and aspiration, or would provoke traumatic injury to the ventral surface of the baby's tongue (Riga- Fede Disease) or mother's breast, thus interfering with breast-feeding^{4,8,9}. Martine et al.

(1998) suggested smoothening of the incisal margin as another option for non-mobile teeth. Goho¹⁰ (1996) reported his treatment by covering the incisal margins with composite resin or Glass Ionomer Cement. Feeding splint 11 was reported by Bjuggren (1973). The clinical approach adopted for 54 in the present case was extraction, in view of its mobility and mainly immature appearance. Curettage of the tissue at the base of the natal molar was also done because of the possibility of residual tooth development (23).

Generally, extraction in newly born infants may cause bleeding problem because the bacterial flora present in the digestive tract of newborn infants may be ineffective in the production of Vitamin K during first 10 days following delivery. Vitamin K plays a major role in the prothrombin synthesis in the liver. Therefore, it is always better to wait for two three weeks for any surgical procedure, so that bacterial flora can get sufficient time to organise properly and help in producing vitamin k.

The extracted tooth showed a calcified structure resembling crown and a soft tissue embedded within (Figure:4), resembling a developing pulp. The soft tissue portion of the tooth was sent for histopathological examination. It was prepared for light microscopical analysis using a conventional technique involving formalin fixation, dehydration in a graded ethanol series, clearing with xylene, paraffin embedding, sectioning, hematoxylineosin staining, and final mounting. The histo-pathology showed loosely arranged connective tissue resembling ectomesenchyme and a dentin matrix (Figure: 5) above it. The deepest region consisted of young connective tissue containing blood vessels of varied caliber and discrete chronic inflammation (Figure: 6). The cells were with varied morphology, fine collagen fibers and a large quantity of an amorphous substance, consistent with young pulp tissue. In a study of natal teeth, Hals (1957) observed normal pulp tissue, except for the presence of inflammatory areas in some regions; moreover, Weil's basal layer and the cell-rich zone were absent^{11,12}. This absence of the pulp zones is considered normal, since these would only be present after completion of dentin formation^{11,12}

CONCLUSION

Multiple natal and neonatal teeth are rare clinical condition and becomes rarest when it encountered in a prematurely delivered baby. The decision to preserve or extract those teeth should be evaluated in every case. Scientific knowledge, clinical experience and parents consent are very useful guide to handle these kind of cases.

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