Natal Tooth: Case Report

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Abstract

This is a case report of a one week old female child with a natal tooth. Solitary natal tooth without contributory family/medical history and not associated with any syndrome, makes this case report unusual. Since radiograph was not taken, we are not certain whether the tooth was supernumerary or a prematurely erupted deciduous mandibular incisor. If it is the latter, esthetic space maintainer has to be provided later, to fulfill the cosmetic and functional requirements.

Case Presentation

A one week old full term female infant was brought to the private clinic with a small tooth like structure in the front portion of the lower jaw. As per the history the tooth like structure was noted since birth and interferes with feeding. The medical and family history was unremarkable. No abnormalities were detected on general examination. On intraoral examination, whitish opaque, incisor like tooth, approximately 0.4 cm in width and 0.4 cm in length was seen on the left lower alveolar ridge near the midline. It was morphologically similar to that of the mandibular deciduous central incisor. Gingiva around the tooth was normal. No associated lacerations present in the surrounding soft tissues. The tooth was moderately mobile. Radiographic examination was not done considering the age and limited mouth opening. Based on the history and clinical appearance, it was diagnosed as natal tooth. Extraction was planned, since it was mobile and interferes with feeding and was done under local anesthetic gel.

Discussion

Natal teeth are the teeth that are present at birth or shortly thereafter, while neonatal teeth erupt within 30 days after birth [1]. However this distinction does not contribute any clinical significance as suggested by Spouge and Feasby [2]. Both natal and neonatal teeth are considered largely as prematurely erupted primary teeth, because of their close resemblance of the primary teeth in size, and shape [1,3-6]. The premature eruption causes mobility of the tooth due to incomplete root formation, since the root completion occurs ½ years after eruption [7]. The terms such as congenital teeth, predeciduous teeth, fetal teeth, and dentitia praecox were also used in the past to denote these teeth. However hornified epithelial structures without root occur in the alveolar ridge of neonates and are termed as predeciduous teeth. These are most of the time dental lamina cysts. But true predeciduous teeth do develop from the bud of the accessory dental lamina [8]. These are supernumerary and are mostly conical in shape. Radiographic examination will help to differentiate the supernumerary tooth from a prematurely erupted primary tooth [5,9].

Natal teeth are more common than neonatal teeth. The incidence of natal teeth ranges from 1:2,000 to 1:3,000 [1,5,9], however the incidence of natal and neonatal teeth varies in different sex, race and population [1,6,10]. Both the natal and neonatal teeth are most commonly mandibular anterior (85%), followed by maxillary anteriors (11%), mandibular canines and molars (3%) and maxillary canine and molars (1%) in order. In mandible, they are reported to occur mostly in pairs, while occurrence of single tooth is not uncommon. The gender predilection is almost equal, except few studies showing slight female predominance. Many times, occurrence of cleft lip and cleft palate are frequently associated with natal and neonatal teeth as an individual feature or in a part of syndromes viz. Pfeiffer, Ellis-van Creveld (chondroectodermal dysplasia), Rubinstein-Taybi, steatocystoma multiplex, pachyonychia congenita (Jadassohn-Lewandowsky), cyclopia, Hallermann-Streiff (Mandibulo-oculo-facial dyscephy with hypotrichosis), Pierre-Robin, Wiedeman Rautenstrauch (neonatalprogeria), Pallister-Hall, ectodermal dysplasia, craniofacial dysostosis, multiple adrenogenital, Sotos, steatocystoma, epidermolysis bullosa simplex, and Walker-Warburgsyndrom Ellis–Van cerreld syndrome. Solitary cases reports of neonatal and natal teeth without any association of syndrome are also reported in the literature.
Although etiology is unclear, several factors are considered for the occurrence of natal and neonatal teeth, which include the following namely, (i) genetic inheritance (autosomal dominant type) (ii) chemical exposures (iii) syndrome associated (iv) infection and febrile states (v) malnutrition including hypovitaminosis (vi) trauma leading to abnormal location of the developing tooth germ in relation to the alveolar bone [1,4-6,10].

Riga-Fedes syndrome consists of ulcer frequently occur in the ventral portion of the tongue due to trauma from the neonatal or natal teeth while sucking. Swift healing is usually noticed with removal or grinding of the tooth (Figure 1).

These natal and neonatal teeth are categorized further as (i) shell like crown that is loosely attached, without root (ii) solid crown that is loosely attached with short or no root (iii) incisal edge of the crown just erupted through the mucosa, (iv) palpable with mucosal swelling, but not erupted. However, removal of the tooth is most often preferred treatment, considering the mobility, which may often lead to aspiration or swallowing of the tooth and interference with nursing.

Microscopically, both natal and neonatal tooth appears similar with thin enamel and dentin with little or no cementum. Dentino-enamel junction usually remains none scalloped. Frequently hypomineralised enamel and dentin are reported. Pulp chamber and pulp canal is usually wide and vascular.

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References