

Natal maxillary primary molars: case report

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An unusual case of a newborn with two immature natal maxillary molars is presented. Clinical and histological examination showed that the teeth were rootless and incompletely mineralized. The patient was followed up during one year and we confirmed that the natal teeth were from normal primary series.

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INTRODUCTION

Teeth present in the mouth at birth are termed natal teeth, while those which erupt during the first thirty days of life are called neonatal teeth.¹

Previous clinical studies and surveys suggest that more females are affected than males.¹⁻⁴ Between 38 to 76% of natal and neonatal teeth occurred in pairs and they usually represent units of the normal primary complement; only 1 to 10% are supernumerary.^{1,2,5-7} The teeth that are most often involved are the lower central incisor and only 1% are maxillary canines or molars.^{1,2,5,7-13}

Clinical appearance of natal and neonatal teeth may resemble normal primary teeth; but, usually they are poorly developed, yellowish, with hypoplastic enamel and dentin, and have poor or absent development of roots.^{1,5,13,14}

Histological examinations showed that the majority of the natal and neonatal teeth present enamel hypoplasia and an irregular pattern of dentin tubule orientation. Both Hertwig's sheath and cementum may be absent and a greater number of dilated blood vessels in the pulp tissue is observed.^{1,4-6,15}

These teeth usually present mobility in all directions because root formation is incomplete and tooth attachment is only at the cervix to the gingiva. Mobility has caused concern because of the possibility of swallowing

or aspirating the tooth.^{1,2,4} Enamel spurs or sharp incisal edges may cause ulceration on the ventral surface of the tongue or may cause laceration of the nursing mother's nipples.¹⁶

The purpose of the present paper is to report an unusual case of molar natal teeth and discuss its possible etiology and treatment, since the responsibility of diagnosis and treatment decisions is the dentist's.

CASE REPORT

The patient was a full term healthy female, born from an uncomplicated pregnancy and delivery, and was a third-born child to a 25 years-old mother. Maternal and paternal medical and social histories had no evidence of hereditary influence or other significant information.

One day after birth the pediatric dentist was required to proceed an intraoral examination that revealed tooth like structures on both sides of posterior maxillary alveolar ridge at the regions of primary first molars. On the right side, only the cusp tips were evident with sign of calcified enamel (Figure 1a). On the left side the natal teeth had a flattened occlusal surface and two shallow cusps, which appeared to be calcified only on the tips. The remainder of the crown was yellowish and apparently unmineralized (Figure 1b). Radiographic examination showed that the tooth like structure were probably the primary maxillary first molars (Figures 2a and 3a).

The teeth were extracted because they presented great mobility. Histological examination showed a thin layer of hypoplastic enamel and dentin with large interglobular spaces (Figures 4a and 4b). Root formation could not be observed from coronal portion.

The child was reexamined at 9 months of age, when mandibular central incisors and maxillary central and lateral incisors were present (Fig 1c) The radiographic examination showed a calcified structure in the area of the natal teeth extractions (Figures 2b and 3b).

At one year of age the patient presented mandibular first molars in eruption and no sign of first molars in the upper arch. In the radiographic examination the

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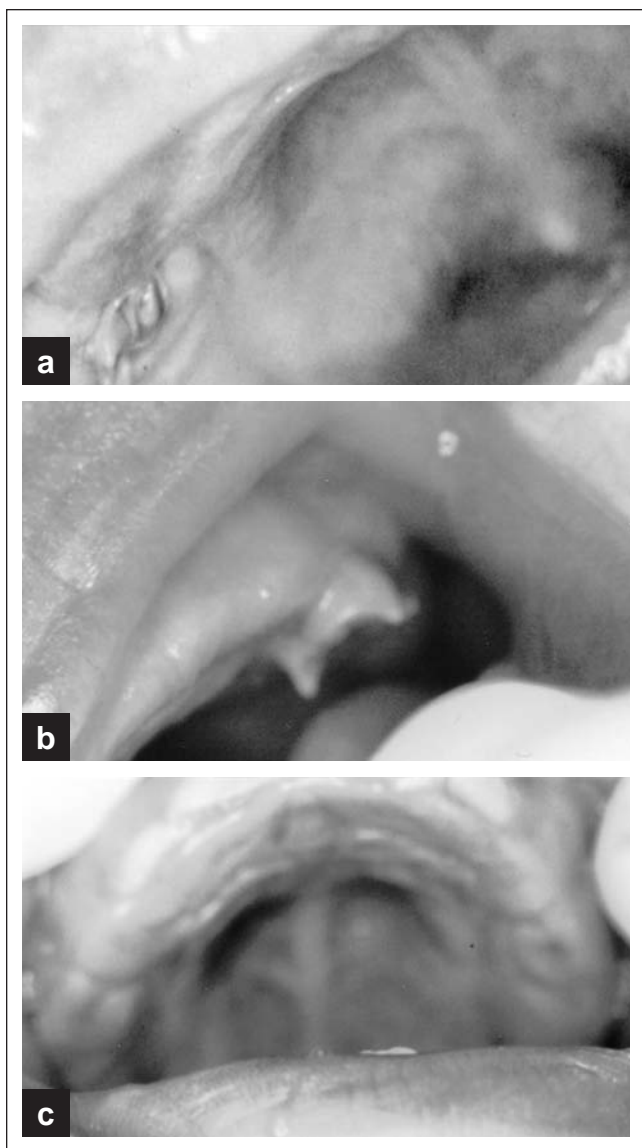


Figure 1. Natal tooth at the maxillary right (a) and left (b) primary molar region. The same area photographed 1 year after tooth extractions (c).

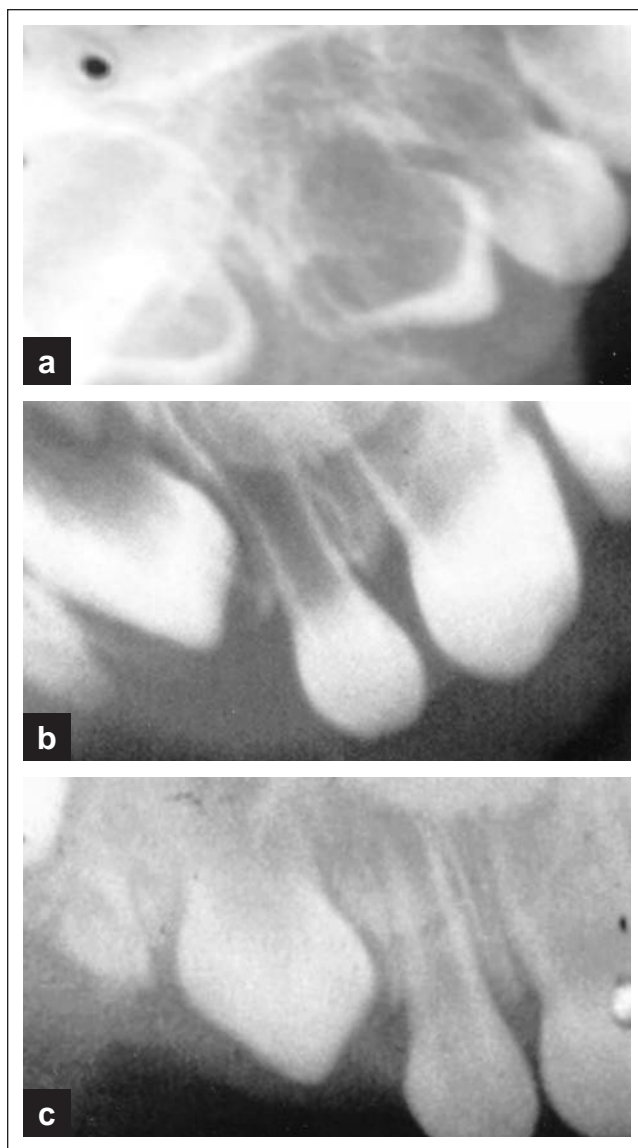


Figure 2. Periapical radiograph of right maxillary area shortly after birth (a), three months (b) and 1 year (c) after natal molar extraction.

calcified structures presented in the last radiograph were more evident and close to the second molar (Figures 2c and 3c).

DISCUSSION

The presented patient had two natal teeth in the maxillary first molar region; and no factors were identified as an etiologic agent. Cases of infants born with teeth already erupted are rare in occurrence and more frequently observed than neonatal teeth in an approximate ratio of three to one.^{6,8} Darwish *et al.*¹⁷ reviewing 50 studies from the literature involving 458 cases of natal teeth found only 4 reported cases of molar natal teeth.

The cause of premature eruption remains unknown and many factors have been suggested such as:

hypovitaminosis, hormonal stimulation, febrile state, trauma, syphilis, hereditary transmission of an autosomal trait and more recently, a superficial position of the developing tooth germ is attributed to tooth early eruption.^{1-3,6-8,11}

Natal and neonatal teeth may occur associated with genetic syndromes or developmental abnormalities such as: chondroectodermal dysplasia, oculomandibulodyscephaly, pachyonychia congenita, cleft palate lip.^{4,11,17}

In the clinical analyses of the patient it is important to observe tooth attachment because those teeth most frequently are from normal series and there is no indication to extract them. However, in this patient the teeth were extracted because there was high mobility and enamel structure was poor.

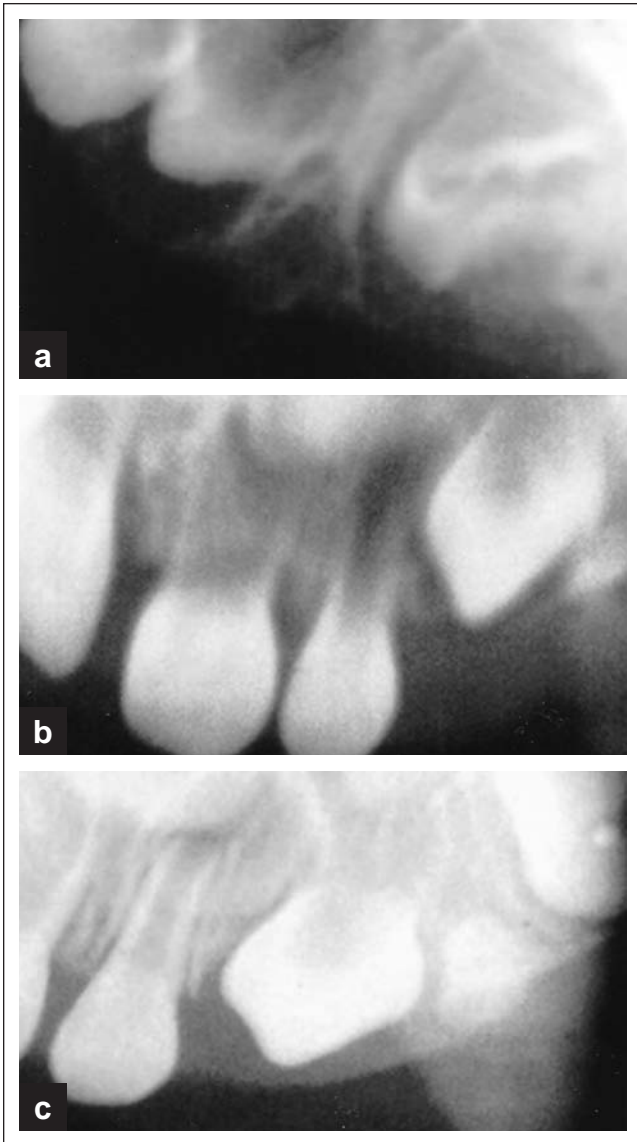


Figure 3. Periapical radiograph of left maxillary area shortly after birth (a), three months (b) and 1 year (c) after natal molar extraction.

After the teeth extractions the patient was followed up during 1 year and we did not identify the deciduous maxillary first molar teeth in the radiographs but calcified structures were present in the extraction area. Calcified structure in the lower central incisors region after natal tooth exfoliation was reported by Ooshima *et al.*¹⁰ and Tsubone.⁸ The last author suggested that the calcified structure had originated from a developing remnant of the exfoliated natal tooth, which have remained in the gingival tissues.

Although reported by Muench *et al.*¹⁹ the possibility of pyogenic granuloma in the teeth extraction place, we did not observe this kind of alteration.

In the present case, histological examination showed hypoplastic enamel, atubular dentine and no evidence of root formation. The same characteristics were reported by other authors.^{1,5,6,14,20}

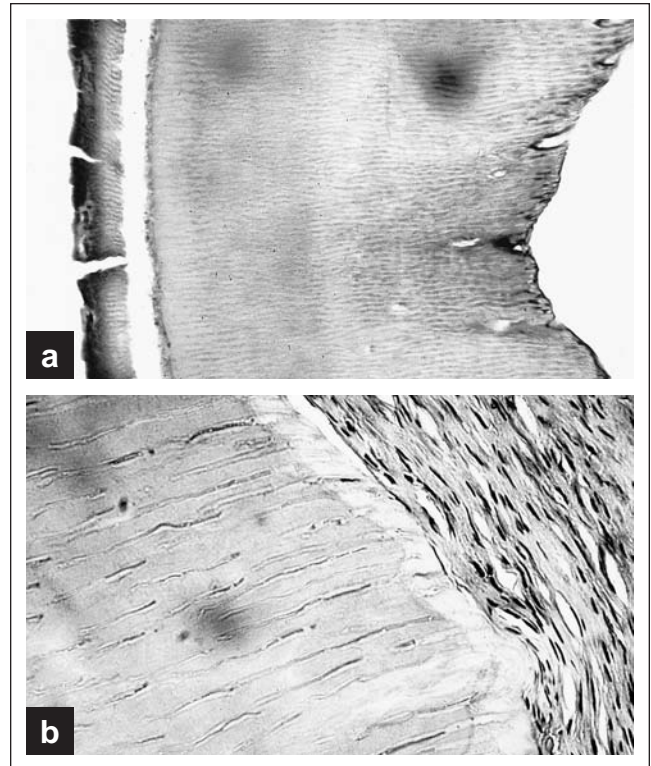


Figure 4. Photomicrograph of natal molar showing thin layer of hypoplastic enamel (a) and dentin with large interglobular spaces (b).

CONCLUSION

The occurrence of posterior natal teeth is extremely rare. Each case must be evaluated independently using radiographic images and clinical judgment to decide whether to retain or extract the tooth. Our patient presented two maxillary primary molars with hypoplastic enamel that were extracted due to the enamel malformation, mobility and aspiration risk.

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