

# ERUPTED TEETH IN THE NEWBORN

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## SUMMARY

*Incidence, aetiology, morphology, histology and symptoms of natal or neonatal teeth are presented. The commonly used terminology natal and neonatal teeth is adopted in this article. A case of an 8-week old girl with natal tooth and sublingual ulceration of the tip of the tongue is described.*

## INTRODUCTION

Various terminologies have been used in the dental and medical literature to describe teeth in the mouth of the new or recently born child. Terms such as precocious dentition or dentition praecox, foetal or congenital teeth and predeciduous dentition were used in the older literature.<sup>1,2,3</sup> The most widely accepted terms are natal or neonatal teeth. Massler and Savara<sup>2</sup> defined natal teeth as teeth which are present in the oral cavity of the infant at the time of birth while neonatal teeth refer to those cases which erupt during the neonatal period (from birth to 30 days). This division is based on time of eruption and not on anatomy, physiology, pathology, origin or symptom. However Spounge and Feasby<sup>3</sup> suggested that the term should be given real clinical significance by describing such structures as mature and immature natal or neonatal teeth. Mature natal or neonatal teeth implies that they are fully developed as compared with the remainder of the deciduous dentition and hence their prognosis is relatively good. Immature natal or neonatal tooth describes an incomplete substandard structure and implies a

poor prognosis, different treatment planning should necessarily accompany it. In the present report the terms natal and neonatal teeth shall be used.

## CASE REPORT

The patient was an 8-week old Malay girl with a tooth in the anterior segment of the mandible. An ulcer was present on the sublingual surface of the tip of the tongue. The ulcer had prevented her from feeding normally and prompted the parents to seek treatment.

The parents gave a history of an uneventful pregnancy. The child was born at term without any known systemic disorder. There was no history of a similar dental occurrence in the family. The tooth was diagnosed at birth by the attending paediatrician. One week later an area of inflammation was observed at the sublingual surface of the tip of the tongue. This later developed into an ulcer within one week. The ulcer enlarged and the patient refused her normal feeds.

On examination the child was otherwise healthy. There was no extra-oral abnormality. Intra-oral examination revealed a natal tooth situated in the region of the lower right primary central incisor. Only one third of the crown was seen clinically. The incisal tubercles were well formed and the tooth slightly mobile. An ulcer of approximately 1 cm in diameter and covered with slough was observed on the sublingual surface of the tongue (Fig. 1).

The tooth was extracted under local anaesthesia with ease and without any complications. This is to prevent any further trauma to the tongue and to allow the ulcer to heal.

The extracted tooth had very little root formation and a large root canal (Fig. 1 inset). Unfortunately no histological examination was possible as the parents insisted on keeping the extracted tooth.

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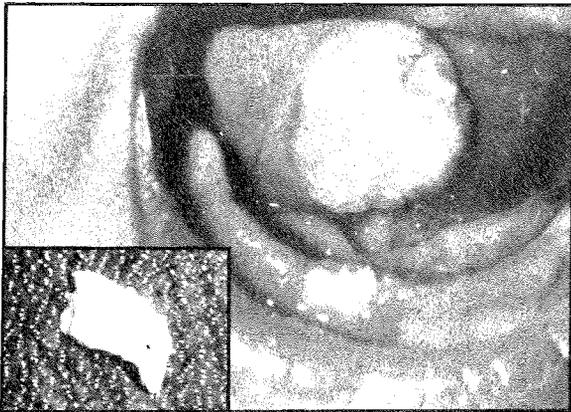


Fig. 1 The natal tooth and sublingual ulceration of the tip of the tongue. Inset: The extracted tooth with little root formation.

## DISCUSSION

The reported incidence of natal and neonatal teeth varied considerably from a low of 1 in 30,000 to a high of 1 in 1000 live births.<sup>1</sup> Massler and Savara<sup>2</sup> reported an estimate for two of the Chicago hospitals as approximately one case of natal teeth in 2000 births. Howkins<sup>4</sup> however reported one in 10,000 births at a maternity hospital at Birmingham in 5 years. But it is felt that the frequency may probably be greater than suspected since many cases remain unrecorded. The occurrence of neonatal teeth is less than the frequency of natal teeth. A review by Massler and Savara<sup>2</sup> showed a frequency of approximately 1 to 4. There appears to be no sex preference. The most frequent natal or neonatal teeth are the primary lower central incisors. Occasionally upper primary central incisors erupt. In nearly 90 percent of the cases reported, the teeth are the normal deciduous teeth and the remainder being supernumeraries.<sup>1</sup> The present case also presented with a natal tooth which was identified as the lower primary right central incisor.

The aetiology of natal or neonatal teeth is unknown. Various possible causes have been suggested. Spounge and Feasby<sup>3</sup> attributed developmental factors as the most frequent cause and it is probably associated with a superficial position of formation of the tooth germ involved. However, Massler and Savara<sup>2</sup> and Howkins<sup>4</sup> showed that the condition occurs with significant frequency in families. Hence it is possible that some

genetic factor in contributory or aetiological. Bodenhoff and Gorlin<sup>1</sup> reported the possibility of 3 syndromes associated with natal teeth, (a) chondroectodermal dysplasia, (b) occulomandibulo-dyscephaly with hypotrichosis and (c) pachonyelsin congenitia. Other possible contributory aetiological factors suggested are congenital syphilis, endocrine disorders, dietary disorders and increased rate of eruption during or after febrile states.<sup>2</sup>

Various investigators studied the morphology and histology of the extracted natal or neonatal tooth.<sup>1,3,4,5</sup> Generally there is no root formation despite eruption. The enamel layer is thin but of normal quality. The dentin shows irregular genesis. Areas of dead tracts, irregular course of dentine fibrils, cell inclusions and interglobular spaces have been observed. The pulp chamber is enlarged and no cementum formation is observed.

Difficulties can arise from the presence of natal or neonatal teeth. Symptoms associated with the eruption of neonatal teeth have been described as essentially the same as those found concurrent with normally erupting primary teeth which includes pain so the infant refuses to nurse, infantile diarrhoea, drooling and malaise.<sup>2</sup> Presence of the neonatal or natal teeth may result in trauma to the tongue leading to sublingual ulceration of the tip of the tongue and laceration and infection of the nipples of the nursing mother. When the tooth is loose there is the added danger of the infant swallowing, or, at the worst, inhaling the tooth. No case of inhalation however has been reported. In this case, the immature tooth was extracted because the trauma to the tongue led to the sublingual ulceration.

## REFERENCES

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