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CC-BY **Natal teeth associated with  
 ingestion of herbal medication in  
 pregnancy: A case report**



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**Abstract:** Significant alteration in timing of tooth eruption with the first teeth being present at birth or erupting during the first month of life is a rare occurrence in humans. Timing of tooth eruption may be affected by hereditary, endocrine and environmental factors. The presence of natal teeth may lead to complications such as discomfort during suckling, laceration of the mother's breasts, sublingual ulceration with resultant feed refusal, and aspiration of the teeth making tooth extraction a management option in affected

infants.

This is to report a rare finding of eight markedly enlarged natal teeth in a post term male. His mother ingested different kinds of herbal medications prior to conception and during pregnancy. The report is aimed at raising questions about the possibility of a causal relationship between antenatal ingestion of herbal medications and occurrence of natal teeth.

**Keywords:** Natal teeth, Neonatal teeth, Herbal medications, Incisor

## Introduction

Tooth eruption, a milestone that normally occurs at about six months of age is associated with functional and psychological change in a child's life as well as emotional stress for the parents. Timing of tooth eruption may be affected by hereditary, endocrine and environmental factors.<sup>1</sup> There may also be significant alteration in timing of tooth eruption with the first teeth being present at birth or erupting during the first month of life. The presence of teeth at birth or in the first month of life becomes a cause of worry to both parents and health professionals because of societal unpleasant reactions and social stigma, great mobility of the teeth raising concerns of possibility of the tooth being swallowed or aspirated during feeding amongst other possible complications.<sup>2</sup>

We report the case of a post term male with eight mandibular and maxillary incisor natal teeth seen at birth. His mother ingested different kinds of herbal medications prior to conception and during pregnancy.

## Case Report

A six-hour-old male baby of Hausa tribe was referred from a mission hospital to Alex Ekwueme Federal Uni-

versity Teaching Hospital on account of difficulty breathing and seizures from birth. Baby was delivered via vacuum extraction at 42 weeks gestational age to a 32 year old now para two mother. Mother had secondary infertility that lasted for 10 years during which she received a lot of herbal medications essentially roots and leaves of plants. During pregnancy, she continued taking the herbal medications until delivery.

Physical examination showed a severely asphyxiated male baby with clinical features of being post term, unconscious, in severe respiratory distress, severely pale and had global hypotonia. Birth weight was 3.9kg. Oral examination revealed erupted four maxillary central and lateral incisors and four mandibular central and lateral incisors. All the teeth were opaque white in colour and appeared fixed and mature (Fig. 1).

The baby succumbed to the effects of severe asphyxia before radiological evaluation of the teeth structure could be made.

**Fig 1:** Clinical photograph of the maxillary teeth



## Discussion

Several names such as congenital teeth, fetal teeth, predeciduous teeth, premature teeth, precociously erupted teeth and dentitia praecox have been suggested for this condition.<sup>3</sup> Massler and Savara in 1950, introduced the current terms “natal teeth” to refer to teeth present at birth and “neonatal teeth” for teeth that erupt within the first 30 days of life.<sup>1</sup> The condition has been the subject of curiosity and has been surrounded by beliefs and assumptions. Titus Livius, in 59 BC, considered natal teeth to be a prediction of disastrous events, and Caius Plinius Secundus (the Elder), in 23 BC, believed that a splendid future awaited male infants with natal teeth, whereas the same phenomenon was a bad omen for girls.<sup>4</sup> Myths about natal/neonatal teeth abound in the Nigerian culture. Bankole and Oke<sup>5</sup> reported that about half of the nurses (49.7%) in a survey in Ibadan, felt that natal/neonatal teeth will be a great source of embarrassment to the family while a smaller proportion (11.8%), believed it was a curse. About 11.1% of respondents were of the opinion that spiritual cleansing should be carried out prior to extraction.

Natal teeth are rare in humans, but more frequently reported than neonatal teeth, with a ratio of 3:1. The incidence of natal and neonatal teeth ranges from 1: 2,000 to 1: 3,500.<sup>6,7</sup> Some studies have reported slightly higher incidence in female infants.<sup>3,7</sup> In a recent comprehensive survey of natal and neonatal teeth in Turkey, Bulut *et al.* recorded a higher incidence of 1:1,048 and 1:1780 respectively with no difference in occurrence between both genders.<sup>8</sup> It has been observed that natal and neonatal teeth erupt 85% in mandibular incisor region, 11% in maxillary incisor region, 3% in mandibular canine region and 1% in maxillary canine and molar region.<sup>9</sup> Olatosi *et al.*<sup>10</sup> reported maxillary natal molar teeth in three infants in Lagos, Nigeria. Although tooth eruption occur in pairs, eruption of more than two teeth is rare.<sup>11</sup> Masatomi *et al.*<sup>12</sup> reported a rare finding of fourteen natal teeth in a Japanese boy. This index patient had a total of eight teeth; four markedly enlarged central and

lateral incisors erupted on each jaw.

The exact aetiology of natal teeth is not known. Infection, febrile states, trauma, malnutrition, superficial positions of the tooth germ, hormonal stimulation and maternal exposure to environmental toxins such as polyhalogenated aromatic hydrocarbons have been suggested as causative factors.<sup>6</sup> The condition might occur as a familial trait since a positive family history has been reported in 8-62% of cases. Here dietary transmission of an autosomal dominant gene and vitamin deficiency have also been suggested.<sup>[11,13]</sup> Natal teeth are present in 2% of infants with unilateral cleft lip and palate and 10% of infants with bilateral cleft lip and palate. They have been reported in association with syndromes that affect growth such as Ellis-van Creveld, Jadassohn-Lewandowsky, Hallerman-Streiff, craniofacial dysostosis, steacystoma multiplex, Sotos, Wiedemann-Rautenstrauch, Meckel-Gruber and Pierre Robins syndrome.<sup>7,13</sup> In this index case, the prolonged intake of herbal medication possibly containing different phytochemicals before and during pregnancy in this mother may have led to alteration in hormone stimulation or vitamin deficiency that might have triggered eruption of the observed natal teeth. No history of familial tendencies of having natal/neonatal teeth was elicited from the mother, and there was no associated syndrome observed. Classification of natal teeth can be based on their degree of maturity or appearance. Spouge and Feasby<sup>14</sup> classified these teeth clinically according to the degree of maturity into mature and immature. The mature tooth has good prognosis while the immature tooth has poor prognosis. Our patient's teeth had normal shape of incisors, with marked increase in size which appeared fixed and mature.

Radiographic examination provides important information on the amount of root formation, their fixity to the gingival tissue, and presence of the corresponding deciduous tooth germ in the jaw.<sup>15</sup> Similar conditions such as supernumerary, early eruption, predeciduous dentition (premature eruption), expulsive folliculitis, or true deciduous teeth may be differentiated by thorough history, clinical, and radiographic examinations.<sup>16</sup> Our patient could not benefit from radiological investigation as he died shortly after admission; as such the diagnosis was based on findings from clinical examination.

Complications associated with natal teeth are discomfort during suckling, laceration of the mother's breasts, sublingual ulceration (Riga-Fede disease) with resultant refusal to suck, and aspiration of the teeth.<sup>7</sup> The management of this condition depends on clinical characteristics of the natal or neonatal teeth, as well as on complications they might cause.<sup>15</sup> For diagnosis of normal dentition for natal teeth, maintenance of the teeth in the mouth becomes priority and management option except when associated with complications. Risk of dislocation, injury to baby's tongue and/or maternal breast, interference with feeding and aspiration have been described as some reasons for their removal.<sup>1,17</sup> Some researchers

recommend removal of only extremely mobile teeth.<sup>7</sup> Few authors have considered extraction of tooth a contraindication in newborns due to risk of bleeding during the procedure and also suggested administration of vitamin K before the procedure to reduce this risk.<sup>18,19</sup>

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## Conclusion

Natal teeth is rare in humans. Most commonly involved teeth are the mandibular central incisors. Although the exact aetiology still remains unknown with some postulations made, use of herbal medications of plant origin containing different phytochemicals may be implicated. Therefore, creating awareness about this condition and suggested causes among pregnant women and health

workers may help reduce the implicated risk factors associated with it as well as reduce unwanted anxiety.

## Authors' Contribution

DC and LN wrote the case report; DC, LO and OB did the literature review. All authors managed the case, read and approved the final manuscript.

**Conflict of Interest:** None

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