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Case Report

Maxillary Tuberculate Mesiodens in Seventeen-Year-Old Edo Girl: A Case Report

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ABSTRACT: Mesiodens (plural: mesiodentes) is a midline supernumerary tooth commonly seen in the maxilla, located between the central incisors. Many theories have been proposed to account for its etiology, the exact mechanism of formation remains unknown. Mesiodens may occur as an isolated dental anomaly of number or could be associated with a syndrome. It affects more males than females (2:1)

Key words: Tuberculate, Mesiodens, Maxillary

Introduction.

Supernumerary teeth are inherited developmental abnormalities that alter the number of teeth[1]. Mesiodens (plural: mesiodentes) is a midline supernumerary tooth commonly seen in the maxilla, located between the central incisors. Several theories have been put forward to explain the mechanism of formation, which till date is largely obscure. Various morphological types have been described and they may be a cause of several complications-dental, psychological and otherwise. This case report presents a rare case of tuberculate mesiodens and in an adolescent female.

Case Report

The mother of a seventeen-year-old girl accompanied her to Eden dental clinic, Mt. Gilead hospital Benin-city, Edo state, with chief complaint of unsightly dental appearance and teasing from peer-group. A non contributory medical and family history was given. She is said to have followed her childhood immunisation schedule as prescribed. Extra-oral examination revealed no abnormalities.
An intra-oral examination revealed a tuberculate mesiodens, located between the central incisors (Figure 1). Oral hygiene was fair.
The mesiodens was extracted under local anaesthesia after obtaining an informed consent.

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Figure 1. Clinical picture, showing a tuberculate mesiodens in a seventeen-year-old girl.

Discussion

There are many acquired and inherited developmental abnormalities that alter the size, shape and number of teeth. When there is an excess of teeth compared to the normal series, it is termed hyperdontia and the responsible tooth/teeth is/are termed supernumerary tooth/teeth. Supernumerary teeth are commoner in the maxilla than mandible[1]. When located in the midline between the two permanent central incisors, they are referred to as mesiodens. (Plural: mesiodentes). Mesiodens, an extra molar tooth: a paramolar and a supernumerary bicuspid tooth are the most common supernumerary teeth in that order.

The incidence of mesiodens is 0.15-3.8% and 0-1.9% in permanent and primary dentition respectively. [2,3,4]. Though there exists no significant sex distribution in the primary teeth, they are twice commoner in the males' permanent dentition.4. Frequency of erupted primary supernumerary teeth is much higher than that of the permanent supernumerary teeth[5]. Three morphological types may be seen: conical or peg shaped, tuberculate and supplemental (adjacent tooth-like), most common being the conical form[6,7.]. Theories proposed to account for the etiology include (i) Atavistic theory: This proposes a phylogenetic reversion. (ii) Dichotomy theory, proposing a split in the tooth bud (iii) Dental lamina theory, suggesting a locally conditioned hyperactivity of the dental lamina and (iv) The unified etiologic theory, proposing a combination of genetic and environmental factors in the etiology of supernumerary teeth. Supernumerary teeth may present as an isolated dental anomaly or in association with other developmental anomalies or syndromes such as cleft lip and cleft palate, cleido-cranial dysostosis, Down's syndrome and Gardner's syndrome[6]. Incidence of supernumerary teeth may be as high as 28% in patients with cleft lip and cleft palate[4].

Mesiodens may stay impacted, erupt normally, erupt into an ectopic position, be inverted or follow an abnormal path of eruption and may precipitate a number of complications including crowding, delayed eruption, diastema, rotations, cystic lesions, resorption of adjacent teeth e.t.c.[6], and psychological problems.

Classification of mesiodens is dependent on the morphology and location. The case reported here is a tuberculate mesiodens. They rarely disturb the eruption of central incisors but may cause and alteration in their path of eruption. Other clinical problems with mesiodens include the development of malocclusion, ectopic eruption of adjacent teeth, cystic changes in the follicle, e.t.c.[6]

In the presence of hypodontia, conservative modification of the crown and orthodontic repositioning is indicated for aesthetic reasons, but in the absence of concomitant hypodontia, treatment of choice is exodontia.

This case in a tuberculate mesiodens in the seventeen-year-old girl presented a great aesthetic and psychological challenge to the young girl and her mother and was removed under local anaesthesia, to prevent further psychological trauma to the young lady and minimize dental complications.

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