

Case report

Embedded Tooth - Radiographic Images and Case Report

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ABSTRACT

Teeth that are not erupted completely or erupted partially may be due to one of the cause that is lack of space or loss of eruptive force or ankylosis. The teeth which are not erupted because of lack of space or any obstruction in their path of eruption are called impacted, those which are not erupted because of lack of eruptive force are called embedded and those are not erupted fully because of ankylosis are called submerge teeth. Here we reported a case of embedded tooth. The purpose of this report is to provide radiographical pictures of embedded tooth that will allows better understanding of the topic embedded tooth because no book has pictorial presentation of embedded tooth as best of my knowledge.

Key Words: Embedded tooth, unerupted tooth, impacted tooth, radiographic image.

INTRODUCTION

Teeth that are not erupted completely or erupted partially may be due to one of the cause that is lack of space or loss of eruptive force or ankylosis. The teeth which are not erupted because of lack of space or any obstruction in their path of eruption are called impacted, those which are not erupted because of lack of eruptive force are called embedded and those which are not erupted fully because of ankylosis are called submerge teeth. Here we reported a case of embedded tooth. The purpose of this report is to provide radiographical pictures of embedded tooth that will allows better understanding of the topic embedded tooth because no book has pictorial presentation of embedded tooth as best of my knowledge.

CASE REPORT

A 17- year old female patient was reported to OPD with the complain of pain on lower left back tooth region since 15 month. Habit and family history was not

significant. On clinical examination only one cusp of 37 was seen in the oral cavity. Intra oral periapical radiograph (IOPA) ([fig 2](#)) and Orthopantogram (OPG) ([fig 1](#)) was advised that reveals fully formed 37, the occlusal level of 37 was at the cementoenamel junction (CEJ) of the 36 and 38 was also at the same level with around 2/3rd root formation. On IOPA ([fig 1](#)) PDL space is clearly seen around the roots of 37. Diagnosis was made embedded in relation to 37 and erupting in relation to 38.



Fig 1- OPG reveals fully formed 37; the occlusal level of 37 was at the cementoenamel junction (CEJ) of the 36 and 38 was also at the same level with around 2/3rd root formation.



Fig 2- IOPA reveals fully formed 37; the occlusal level of 37 was at the cemento enamel junction (CEJ) of the 36 and 38 was also at the same level with around 2/3rd root formation. PDL and lamina dura are intact and all around the roots.

DISCUSSION

Movement of tooth from its developmental site i.e. inside the alveolar process to their functional position i.e. in the oral cavity is known as tooth eruption. [1] Normal tooth eruption can be disturbed by many factors such as physical or mechanical obstruction, abnormal positioning of the tooth bud, dental follicle abnormality, primary eruption failure (genetic), medical syndromes like craniofacial dysostosis, osteopetrosis, or hypothyroidism etc or tooth ankylosis. [2-7] In the above case report the space for eruption of 37 is sufficient i.e. there is no loss of space or any physical obstruction therefore diagnosis of impaction is excluded. And also the eruption age of 2nd mandibular molar in oral cavity is 12 year and of 3rd mandibular molar is 17-18 years so that third mandibular molar tries to move mesially after eruption in oral cavity at the age of 17 year and above it means 37 tooth had 5 years period to completely erupt in oral cavity without any obstruction although it has completely formed root it means it cannot be a case of impacted tooth. On IOPA radiograph the periodontal ligament space (PDL space) is clearly seen it means there was no ankylosis so that diagnosis

ankylosis had been excluded. Root of 37 teeth is completely formed but the tooth is not erupted although it had good space for eruption so during root formation there was lack of eruptive force therefore the diagnosis embedded tooth was made. The patient was referred to orthodontic department for eruption of 37 teeth by fixed orthodontic treatment.

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