

# TWIN MESIODENS : A CASE REPORT

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## Abstract

The supernumerary teeth are anomalies of dental development that are not rare to find in the clinical practice. A supernumerary tooth is one that is additional to the normal series and can be found in almost any region of the dental arch. Among the supernumerary teeth a single "mesiodens" is most frequent. The mesiodens is found in the region of the superior central incisors and it can be the cause of many complications. The aim of this work is the description of a rare case of Twin mesiodens.

## Introduction

A supernumerary tooth is one that is additional to the normal series and can be found in almost any region of the dental arch. Supernumerary teeth occur as isolated dental findings or as part of a syndrome. They are frequently discovered during routine radiographic examination or when a normal tooth is either delayed in its eruption or displaced often resulting in arch length inadequacy. An early diagnosis allows early intervention, more favorable prognosis and minimal complications.

Supernumerary teeth, hyperdontia, are of particular interest to dentist who commonly makes the initial diagnosis. The vast majorities of supernumerary teeth are associated with the permanent dentition and occur predominantly in the premaxillary midline region and are termed mesiodens. Mesiodens is a supernumerary tooth with a cone shaped crown and a short root situated between the maxillary central incisors. Of these, most are reported to remain unerupted. Two types of supernumerary teeth exist that are classified as supplemental (tooth like) and rudimentary. The etiology of supernumerary teeth is unclear, but the most popular theory involves hyperactivity of dental lamina. A hereditary link and a predilection for males has been suggested.<sup>1</sup> The factors which are responsible for hyperactivity might be tensions within the jaws as well as the mobility of particular facial processes which result in dental lamina splitting.<sup>2</sup>

In 2003, Dash JK et al<sup>3</sup> reported a case of bilateral occurrence of supernumerary teeth in deciduous dentition that was completely erupted. A similar condition is illustrated in the current case of unusual double mesiodens occurring in the permanent dentition. The case presented here is of unusual double mesiodens.

## Case report:

A 30-year old male reported to the Comprehensive Dental Care center of the Department of Community

Dentistry, Manipal College of Dental Sciences, Manipal, India, complaining of difficulty in biting and cleaning of teeth due to the presence of 'extra teeth'. The patient desired for extraction of his upper front teeth as he was not able to maintain his oral hygiene. This was his first visit to the dental clinic. Extra-oral examination showed incompetent lips (where lips do not meet each other at state of rest).

## Oral examination:

He presented with two supernumerary teeth in relation to upper front teeth. The oral hygiene was poor, with calculus deposits and inflamed gingiva. His medical history was non-contributory and detailed investigation into family history suggested that no one in family had any such tooth. On clinical and radiographic examination two well developed, conical mesiodens were seen. Among them one was palatal to maxillary central incisor at midline and other was between left central incisor and lateral incisor located again palatally. Patient had bilaterally Angles' class II molar relationship with maxillary right central incisor tipped labially causing increased overjet. No carious lesion was evident and no restoration was required.

## Investigation and treatment:

The Radiographic examination included IOPA and occlusal radiographs and treatment plan was decided according to patient's and orthodontic department's desire i.e. extraction of the supernumerary teeth and subsequently orthodontic treatment for correction of occlusion. Teeth were extracted under local anesthesia and patient was referred to the department of Orthodontia for further treatment.

## Discussion:

Epidemiological studies report an incidence of up to 5 per cent for supernumerary teeth in the permanent dentition.<sup>2</sup> Ninety per cent of these teeth were found in maxilla. The incidence of mesiodens has been reported to range from 0.15 to 4 per cent. Mesiodens prevalence in males is twice as frequent as in females.<sup>2</sup>

These teeth can be single or paired, impacted, inverted, or erupted, but complete eruption with perfect alignment is rare.<sup>4</sup> Supernumerary teeth may occur in isolation or as part of a syndrome, such as cleidocranial dysplasia, Gardner's syndrome, cleft lip and palate. A careful check for a family history of supernumerary teeth could point to the presence of a genetically determined syndrome.<sup>5</sup>



Among the supernumerary teeth a single "mesiodens" is most frequent. The mesiodens is found in the region of the superior central incisors and it can be the cause of many complications.<sup>6</sup> Treatment depends on the type and position of the supernumerary tooth and on its effect or potential effect on adjacent teeth. The management of a supernumerary tooth should form part of a comprehensive treatment plan and should not be considered in isolation.

### Indications for Supernumerary Removal<sup>7</sup>

Removal of the supernumerary tooth is recommended where:

- Central incisor eruption has been delayed or inhibited;
- Altered eruption or displacement of central incisors is evident;
- There is associated pathology;
- Active orthodontic alignment of an incisor in close proximity to the supernumerary is envisaged;
- Its presence would compromise secondary alveolar bone grafting in cleft lip and palate patients;
- The tooth is present in bone designated for implant placement;
- Spontaneous eruption of the supernumerary has occurred.

In adults a careful evaluation of the indication for surgical removal is necessary considering the increasing difficulty of removing an impacted and ankylosed supernumerary anterior tooth with external resorption.

### References:

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### Legends:

1. Clinical appearance of twin mesiodens- open mouth.
2. Clinical appearance of twin mesiodens- occlusion.
3. Occlusal radiograph.
4. IOPA in relation to upper central incisors.
5. Extracted twin mesiodens.

