

# HYPERDONTIA- PRESENCE OF 13 PREMOLARS: A CASE REPORT

ROHIT KOCHHAR\*, ABHINAV SHARMA\*\*, ARUNDEEP SINGH\*\*\*, SACHIT \*\*\*\*

\*Professor, \*\*Sr. Lecturer, \*\*\*Professor and Head of the Department, \*\*\*\*Professor

\*, \*\*, Dept. of Conservative Dentistry and Endodontics, ITS Dental College and Hospital, 47, Knowledge Park - III, Greater Noida, Uttar Pradesh

\*\*\*Dept. of Conservative Dentistry and Endodontics, Manav Rachna Dental College and Hospital, Faridabad, Haryana

\*\*\*\*Dept. of Periodontics, ITS Dental College and Hospital, 47, Knowledge Park - III, Greater Noida, Uttar Pradesh

## ABSTRACT:

Clinical examination and orthopantomography of a patient revealed the presence of five extra supplementary teeth (four impacted and one clinically erupted). All these teeth resembled premolars, hence Parapremolar. The supernumerary teeth had normal tooth morphology with regard to their crowns and roots but were slightly smaller than the existing premolars. Though the etiology remains a mystery, genetics is a key factor in their development.

## INTRODUCTION

Teeth as a part of oral cavity has many roles to play they serve an important role in chewing and phonetics. Their morphology is responsible for the esthetic and cosmetic beauty of the face. The normal number is 20 in deciduous and 32 in permanent dentition<sup>1</sup>.

A supernumerary tooth (or hyperodontia) is defined as an increase in the number of teeth in a given individual, i.e., more than 20 deciduous or temporary teeth and over 32 teeth in the case of the permanent dentition<sup>2,3</sup>.

Though the etiology of hyperdontia is uncertain, but the majority of supernumerary teeth are considered to develop as a result of horizontal proliferation or a hyperactivity of the permanent or deciduous dental lamina<sup>4,5</sup>. A hereditary component has been suggested<sup>6,7</sup> and current

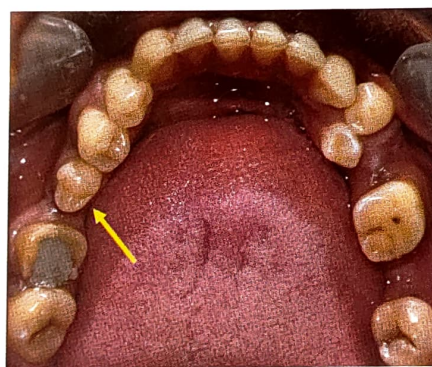


Fig 1: Photograph showing an extra tooth



Fig 2: Photograph of maxillary arch

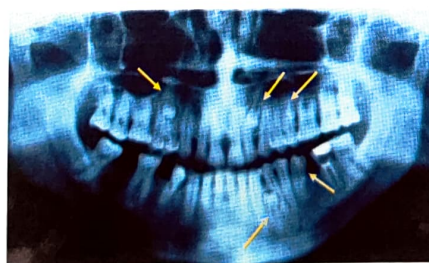


Fig 3: Radiograph showing three in maxillary arch and two extra teeth in mandibular arch

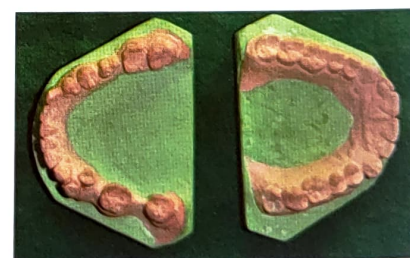


Fig 4: Diagnostic casts of both arches

genetic studies have revealed the possible intervention of ectodine as an inhibitor protein against the third dentition<sup>8,9</sup>.

Supernumerary teeth are most often seen in the maxillary anterior and molar regions<sup>10</sup>. The supernumerary teeth that occur between or just posterior to the central incisors are referred to as "mesiodens"<sup>8</sup>; those in the molar area are called "paramolar" teeth; and, more specifically,

those that erupt distally to the third molar are "distomolar teeth". Supernumerary teeth are more repeatedly seen in the permanent dentition<sup>8</sup>. The prevalence ranges from 0.1% to 3.4%.<sup>10</sup> Supernumerary teeth can have normal morphology and are referred to as "supplementary teeth". On the other hand, supernumerary teeth may be rudimentary in shape and smaller in size<sup>10</sup>. The cases having normal morphology are more frequently seen among the dis-

tomolars found in the mandible. Authors agree supernumerary teeth occur more frequently in the maxilla than in the mandible<sup>10</sup>.

Few authors feel supernumerary teeth are found more often in the mandible than in the maxilla. Supernumerary teeth may or may not be erupted. They are radiographically evaluated when impacted. If they erupt, they may cause malalignment of the dentition.

### CASE HISTORY

A 35 year old healthy male patient visited to the department of conservative dentistry for filling of his decayed teeth. On intraoral examination, the entire soft tissues appeared to be normal. The hard tissue examination revealed the presence of an extra tooth which was distal to premolars of right side (Fig-1) in the lower jaw. There were 13 teeth present instead of 8, when counted from second premolar to adjacent second premolar. The maxillary arch showed normal dentition (Fig. 2) with no mal-alignment. After that the patient was subjected to radiography to differentiate extra tooth from the fusion or the germination. Orthopantomography (Fig. 3) showed the presence of three extra supplementary teeth in maxillary arch and two in mandibular arch (only one was clinically erupted). These supplementary teeth were impacted, appeared single, independent and they were not related to the adjacent tooth, but resembled the premolars; hence, they were called as supplementary teeth. A diagnostic casts of both maxilla and mandible was made (Fig. 4). Again, as the patient was asymptomatic, he was kept under observation.

### DISCUSSION

A large percentage of anterior supernumerary teeth remain unerupted. The exact mode of inheritance has not been established; however, a familial tendency has been noted. It has been stated that the development of supernumerary teeth may cause various pathologies. Approximately 75% of the supernumerary teeth are diagnosed radiographically.

According to the literature the incidence

Dental screening camp was held on 25.05.2013 Saturday in association with Smilewell dental clinic and Orthodontic Research Centre, a Tobacco Intervention Initiative (TII) Recognized Center by IDA, and guidelineed by Dr Rajeev Lall, DyZonal Reagent, International College of Dentists (ICD). Camp was held at the office premises of Videocon IndLtd.Ranchi. Those present were Dr. Rajeev Lall, Dy.Zonal Regent Eastern Zone Dr. Anshu Sahu, Dr. SauravPurbay, and others. Each of the 40 participant were screened and made aware of the situation/condition of their oral cavity including:

- Need of healthy teeth Socially, Personally, Professionally
- How bad oral hygiene affects other organs of body
- There was seminar presented with the use of visual aids like posters & computer screens to make participants aware of their dental conditions.
- Participant attended a seminar on the screen On the methods of brushing, The types of gum n dental problems and Their simple and modern, mostly painless treatment.



of these cases the reported case showed an extra tooth on has been found to vary according to the population which is studied, ie. between 0.1-3.8% and this has been found to reach up to 28% in patients with cleft palate and harelip. Clinical examination but when viewed in radiograph the toll raised to five (four were impacted). Some

hyperdontia may be familial and some may be syndrome associated (Gardner's syndrome, Cleidocranial dysplasia)<sup>4</sup>. Patient had no syndrome.

### CONCLUSION

In order to minimize the risk of complications resulting from supernumerary teeth early diagnosis is very important. These teeth can cause delayed eruption, non-eruption of the permanent teeth, displacement of the permanent teeth and root resorption of the adjacent teeth due to pressure and cystic formations, in these particular cases extraction is recommended. But sometimes these supernumerary teeth are asymptomatic and does not affect the dentition, hence extraction is not always recommended.

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