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CASE REPORT - DENTISTRY

Multiple Impacted Permanent and Supernumerary Teeth: A Case Report

AJAY PARIHAR*, RAM KISHORE R**, VILAS N***, MADHU R****

ABSTRACT

Supernumerary teeth are an important cause of dental retention. Multiple supernumerary teeth without a syndrome are rare. Most of such cases are found in association with syndromes such as Gardner's syndrome, cleidocranial dysostosis and cleft lip and palate. It has been reported that the prevalence for non-syndrome multiple supernumerary teeth is less than 1%. We describe here, a case of a 24 year old patient presenting with thirty four impacted permanent and supernumerary teeth, which is a unique presentation in the absence of any syndrome.

Key words: Tooth, Supernumerary; tooth, impacted; dentition, permanent; tooth, deciduous;

*B.D.S, M.D.S, Assistant Professor, Department of Oral Medicine, **B.D.S, M.D.S, Assistant Professor, Department of Orthodontics, ***B.D.S, M.D.S, Associate Professor, Department of Oral Surgery, ****B.D.S, M.D.S, Assistant Professor, Department of Periodontics.

Corresponding Author:

Dr. Ajay Pratap Singh Parihar, B.D.S, M.D.S
Assistant Professor, Department of Oral Medicine,
Diagnosis & Radiology
Government College of Dentistry, Indore, Madhya
Pradesh, INDIA
Telephone: +9199778-84488
E-mail Add: pariharajay@yahoo.com

Introduction:

An impacted tooth is one that is embedded in the alveolus, so that its eruption is prevented or the tooth is locked in position by bones or the adjacent teeth [1]. A supernumerary tooth is that which is additional to the normal series and can be found in any region of the dental arch [2]. The occurrence of multiple Supernumerary teeth in only one patient, in the absence of an associated systemic condition or syndrome is considered as a rare phenomenon. Wherever "multiple supernumerary teeth" is considered to mean five or more supernumerary teeth, the prevalence has been reported to be less than 1% [3].

Case Report:

A male patient aged 24 years reported with the complaint of multiple missing teeth in the upper and lower arches and wanted to have a prosthesis made for the same. Family history and medical history were not significant. The systemic investigations were not suggestive of any disease

or syndrome. Intraoral examination revealed retained deciduous root pieces of 51 and 54. The deciduous erupted teeth were 55, 62, 63, 74, 75, 83 and 84 and the permanent erupted teeth were 16, 26, 36 and 45. One erupted mesiodens was also present in the midline [Table/Fig 1].

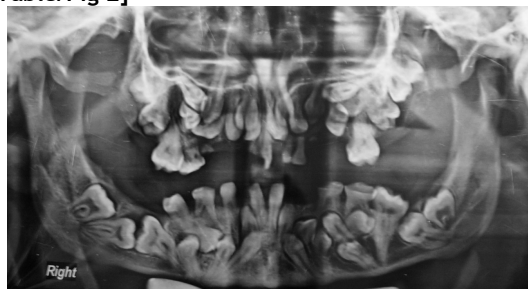
[Table/Fig 1]



Subsequent radiological examination of the orthopantomogram [Table/Fig 2] revealed thirty four impacted teeth. Supernumerary teeth were also seen in each quadrant. The right maxillary quadrant consisted of one mesiodens, one malformed and seven permanent impacted teeth. The left maxillary quadrant had one

supernumerary distomolar tooth and seven impacted permanent teeth.

[Table/Fig 2]



The left mandibular quadrant showed three supernumerary premolars and six permanent impacted teeth and the right mandibular quadrant showed one supernumerary premolar and seven permanent impacted teeth. Surgical removal of the root pieces and the supernumerary multiple impacted teeth was planned with orthodontic intervention, to facilitate the eruption of the impacted teeth.

Discussion:

The case described, represents unique characteristics of multiple impaction as well as supernumerary teeth in a single patient. The supernumerary teeth present in various different forms. If they are similar to a natural tooth, they are called by the same name, for instance, supernumerary canine, otherwise, when its morphology is abnormal, it is just indicated as a supernumerary tooth located in a certain area.

The presence of only one supernumerary tooth occurs in 76-86% of the cases, the presence of two in 12-23% and only 1% of the individuals have three or more supernumerary teeth [3]. The association of multiple supernumerary teeth can be associated with Gardner's syndrome, Fabry-Anderson syndrome, Ehlers-Danlos syndrome, or cleidocranial dysplasia [4],[5],[6]. Supernumerary teeth may lead to various pathological conditions. These include delayed eruption or non-eruption, displacement of permanent teeth, resorption or malformation of the adjacent roots and cystic formation [7].

The etiology of hyperdontia still remains unclear. Hattab et al [3] described hyperdontia as

“a multifactorial inheritance disorder which originates from the hyperactivity of the dental lamina”, while others suggested that supernumerary teeth were formed due to the dichotomy of the tooth bud [8]. Supernumerary teeth are generally thought to occur in the upper jaw ten times more frequently than in the lower jaw [9],[10].

It is essential to enumerate and identify the teeth which are present clinically and radiographically, before a definitive diagnosis and proper treatment plan can be formulated, as supernumerary teeth can be an important cause of dental retention [11].

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