

# Non-Syndromic Oligo-Hyperdontia: A Rare Case Report

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## Abstract

Concomitant presence of supernumerary teeth and partial anodontia is an uncommon condition. Its etiology is still obscure. Very few cases have been reported in the literature of this condition. Presented here is a rare case of simultaneous presence of supplemental supernumerary tooth and multiple missing teeth in both the arches in twelve year old girl child without any associated systemic condition or syndrome.

## Keywords

Concomitant, Oligodontia, Supernumerary tooth, Partial anodontia.

## Introduction

Although the anomalies in tooth number and form are quite common; concomitant oligo-hyperdontia is a very rare mixed numeric anomalous condition of oral cavity and there are no published estimates of prevalence of which the authors are aware. Still rarer is the existence of this condition in the same arch. Aetiology is obscure and as asserted by Baccetti<sup>1</sup>, the two occurrences are probably unrelated phenomena

Oligodontia, congenital lack of more than six permanent teeth, has a prevalence of 0.08% in a Dutch study (Schalk-van der Weide, 1992)<sup>2</sup>, and 0.16% in a Danish study (Rolling and Poulsen, 2001)<sup>3</sup>. In a Finnish study, 42% of the missing teeth were lower second premolars, 29% upper second premolars, 19% upper lateral incisors, 4% lower first premolars, 3% lower

central incisors, and 1% lower lateral incisors. Hypodontia of second molars and lower canines were rare, 0.7% of the missing teeth (Haavikko, 1971)<sup>4</sup>.

Supernumerary teeth are defined as an excess in the number of teeth when compared to the normal dental formula (Primosch, 1981)<sup>5</sup>. Brook found that supernumerary teeth were present in 2.1% of permanent dentitions<sup>6</sup>.

Combination of presence of supplemental supernumerary tooth and congenital absence of both the lateral incisors in maxillary arch all the four mandibular incisors along with right mandibular canine has not been found in literature. Presented here is a rare case of simultaneous presence of supplemental supernumerary tooth with talon cusp and multiple missing teeth in both the arches in twelve year old girl child without any associated systemic condition or syndrome.

## Case Report

An twelve year old female child reported to the Department of Pedodontics and Preventive Dentistry, Govt. Dental College, Rohtak with the chief complaint of irregular upper teeth and missing lower front teeth. The child's medical history was unremarkable Both child and the parent were unaware of any trauma to the teeth and jaws or any perinatal infection suffered by child or mother. In addition, there was no family history of dental anomalies in the child's parents or siblings. Extra-orally the patient appeared normal. Clinical examination showed the child to be in the mixed dentition stage with the following teeth present

Upper Arch: 16,55,14,13, S,11,21,23,24,65,26

Lower arch: 46,85,44,33,34,75,36.

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Oral hygiene was poor with generalized gingivitis and caries was noted in the lower right and left deciduous molars ( Figure-1).

Absence of both maxillary lateral incisors , all the four mandibular incisors and right mandibular canine along with the presence of supplemental incisor tooth with talon cusp in maxillary arch were quite evident clinically. Radiographic examination through orthopantomogram confirmed the absence of both maxillary lateral incisors and all the four mandibular incisors and right mandibular canine along with presence of the supplemental supernumerary tooth with talon cusp distal to right maxillary central incisor. Radiographically, the lower left second premolar appeared to be erupting distally and resorbing the mesial root of the lower permanent left first molar (Figure -2).

A multidisciplinary approach comprising Pedodontist, Orthodontist, Oral surgeon and Prosthodontist was adopted for the case to ensure complete esthetic and functional rehabilitation. Retained deciduous molars were extracted and the patient is presently under orthodontic treatment for alignment of the teeth and deimpaction mandibular left second premolar by distalization of first molar which will be followed by aesthetic recontouring of the supernumerary and left maxillary canine to lateral incisor on the both the sides and prosthetic replacement of missing incisors and left canine in the mandibular arch.

### Discussion

Concomitant hypo-hyperdontia is the conveniently concise term introduced by Camilleri<sup>7</sup> to describe the simultaneous presence of hypodontia and supernumerary teeth.

Hypodontia and oligodontia are classified as isolated or nonsyndromic hypodontia/ oligodontia and syndromic hypodontia/ oligodontia or hypodontia/oligodontia associated with syndromes. The term hypodontia is used in a narrow sense when the number of missing teeth is one or a few- 1 to 6 teeth missing (excluding the third molars). Oligodontia is defined as missing a large number of teeth- more than six teeth missing (excluding the third molars)<sup>8</sup>. Supernumerary teeth are defined as an excess in the number of teeth

when compared to the normal dental formula<sup>5</sup>. There are no satisfactory explanations for the mode of inheritance of supernumerary teeth. However, it is generally agreed that although a genetic component may exist, environmental factors cannot be discounted<sup>6</sup>. A number of different types of supernumerary tooth exist which are classified according to their morphological features Rudimentary supernumeraries are described as being either conical or tuberculate in shape, the conical form being the most common. Supplemental supernumeraries resemble the normal series, but are usually smaller.

Very few cases of co-existent Hypo-hyperdontia have been reported in literature. Munns Nathanail and Mercer each reported a case of missing upper lateral incisors associated with supernumerary premolars<sup>9</sup>, Matsumoto, Nakagawa, Sobue, Ooshima reported a case of missing maxillary second premolar with simultaneous presence of supernumerary in the same Jaw<sup>10</sup>. Sharma A reported a non syndrome case of concomitant multiple supernumerary teeth in both maxillary and mandibular arches and missing maxillary permanent left canine in a 12 year old girl<sup>11</sup>. Concomitant oligo-hyperdontia is a very rare dental anomaly. In the present case the most striking feature is the absence of right mandibular canine, all four mandibular incisors and maxillary lateral incisors along with the presence of supplemental supernumerary tooth with talon cusp resembling maxillary central incisor without any association with any syndrome. To the authors' knowledge no such case has been reported describing concomitant Oligo-hyperdontia .This rarity prompted the authors to report the case.

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