

## Supernumerary Supplemental Teeth in a Non Syndromic Patient: A Rare Case Report

Dr. Priyanka Tiwari<sup>1</sup>, Dr. Mylavarapu Krishna Sagar<sup>2</sup>

<sup>1.</sup> Lecturer, Department of Periodontology, People's Dental Academy, Bhopal

<sup>2.</sup> Sr. Lecturer, Department of Pediatrics and Preventive Dentistry, People's Dental Academy, Bhopal

---

**Abstract:** Multiple Supernumerary teeth and their occurrence may or may not be associated with syndromes or metabolic disorder. Most of the supernumerary teeth are either impacted or asymptomatic or both. Here is a rare non syndromic case with seven supernumerary developing teeth buds.

---

Date of Submission: 05-11-2019

Date of Acceptance: 20-11-2019

---

### I. Introduction

Hyperdontia is an odontostomatologic anomaly which is characterized by an excess in tooth number, both erupted and non erupted. It is described 'false' if it is due to retained deciduous tooth and delay in their shedding and described 'true' if there is actually an increased number of teeth.<sup>1</sup> The first reported case of supernumerary teeth was sometime around AD 23 and & 79.<sup>2</sup> Although the exact etiology of supernumerary tooth is still unclear, there are many theories that supposedly explain the etiology of supernumerary teeth. One theory suggest that independent, local, and conditioned hyperactivity of the dental lamina leads to supernumerary tooth. Another theory states that dichotomy of tooth bud is the causative etiology of supernumerary tooth. The significance of hereditary and environmental factors can also be considered important on the occurrence of supernumerary tooth. Sedano and Gorlin also suggested the role of autosomal dominant trait.<sup>3,4,5</sup> Supernumerary teeth mostly erupt with normalcy, or may exhibit impaction, or may reach heterotropic positions or may show abnormal eruptive patterns.<sup>6</sup> This article presents such a case of a 14 yr old boy with 7 supernumerary teeth.

### Prevalence

Brook in 1974 conducted a study in 2000 schoolchildren and found that supernumerary teeth were present in 2.1% of permanent dentition and 0.8% of deciduous dentition.<sup>7</sup> According to Kiniron MJ, males are affected almost twice than females in case of permanent dentition. There seemed to be no such significant sex distribution when it came to primary supernumerary teeth.<sup>8</sup> Vichi M and Franchi L in 1995 studied the dental anomalies of maxillary anterior teeth in 77 children who were affected by unilateral or bilateral clefts of lip with and without involvement of palate. They found that the incidence of supernumerary teeth in them was 22.2%.<sup>9</sup> Jensen BL and Kreiborg S conducted a study in which the dentition was evaluated from orthopantomograms, intraoral radiographs, cephalometric films, surgically removed teeth and intraoral photographs in 19 patients suffering from cleidocranial dysplasia (9 men, 10 women), aged 3.5 to 34 years. They concluded that the incidence of supernumerary teeth in patients suffering from cleidocranial dysplasia ranged from 22% in the maxillary anterior region to 5% in the posterior region.<sup>10</sup>

### II. Case Report

A 14 year old boy reported to the department of pedodontics and preventive dentistry with a chief complaint of pain in the upper left region of jaw. He also complained of spacing between his teeth. The family and medical history was non contributory. So were the general and extra oral examinations.

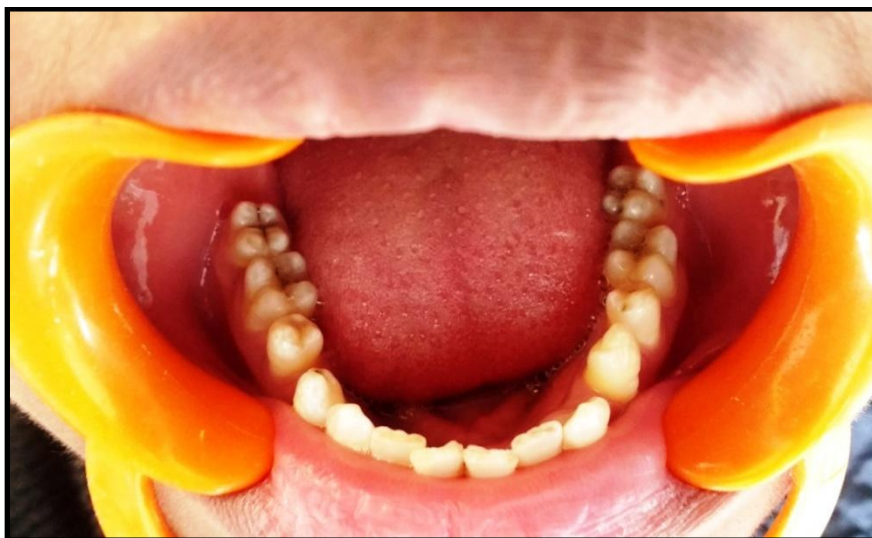
Intraoral examination revealed that all the permanent teeth have erupted with the exception of both the mandibular third molars and maxillary right third molars. The maxillary first permanent molar of the left side was found to be infected with deep mesioproximal caries and there was over retained deciduous canine of the same side. Also there was incidence of interdental spacing between both the premolars of the mandible and between the maxillary second premolar and first molar of the right side. (Figure 1 and 2)

Following was the dentition observed clinically

7	6	5	4	3	2	1		1	2	3	c	4	5	6	7	8
7	6	5	4	3	2	1		1	2	3	4	5	6	7		



**Figure 1→Maxillary Arch**

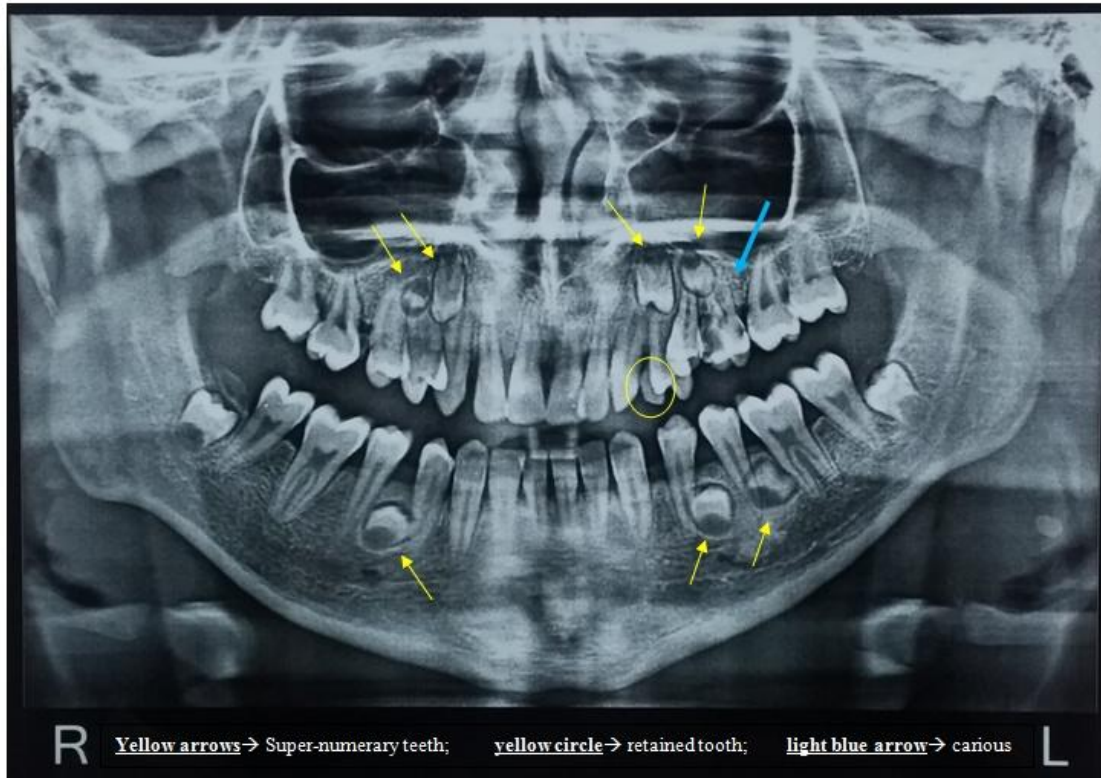


**Figure 2→Mandibular Arch**

An Intra oral periapical radiograph was advised in relation to 26 to evaluate the deep caries status and an Orthopantomograph was advised to rule out the presence of any impacted supernumerary teeth.

The Intra oral periapical radiograph showed deep mesioproximal caries in relation to 26 and the Orthopantomogram revealed tooth buds of seven impacted supernumerary teeth. (Figure 3)

The OrthoPantamoGram revealed that there were developing tooth buds of seven supernumerary teeth, four in the maxillary area and three in the mandibular area.



**Figure 3 → OrthoPantamoGram**

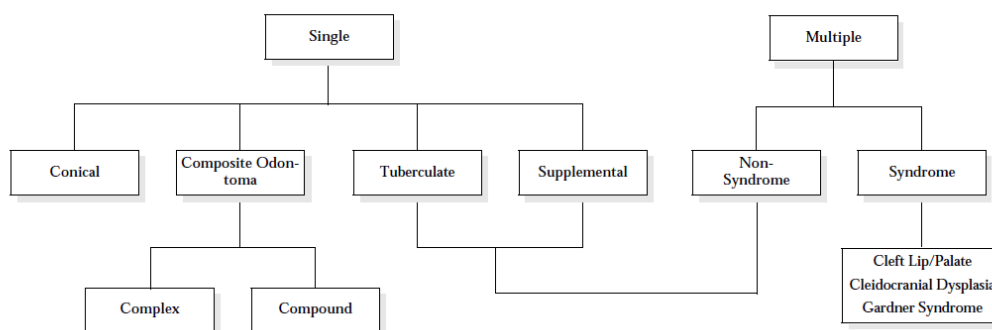
s	s		s	s											
7	6	5	4	3	2	1	1	2	3	c	4	5	6	7	8
7	6	5	4	3	2	1	1	2	3	4	5	6	7		
s							s	s	s						

Initially there arose a conflict of doubt as to whether the carious tooth was 26 or retained 65. Clinical observation showed the presence of the Cusp of Carabelli due to which it was confirmed that the tooth was 26. Thereafter endodontic treatment was subsequently performed of 26 and the patient was relieved of the pain. Extraction of retained 63 was also done. Then the patient and his parents were informed and explained about the various supernumerary teeth that were present within the maxilla and mandible.

### III. Discussion

Before we come to the discussion of the treatment protocol of multiple supernumerary teeth, it is imperative that we talk about the effects that these supernumerary teeth exhibit on the developing dentition. Crowding of teeth, adjacent permanent tooth/teeth may fail to erupt in the oral cavity, displacement of adjoining teeth, ectopic eruption of teeth, occurrence of diastema, and sometimes even loss of vitality. One or more of these manifestations may be present or sometimes no effect on the remaining adjacent teeth also can be seen.<sup>6</sup> Table 1 shows classification of the supernumerary teeth.<sup>11</sup>

Table 1 Classification of Supernumeraries



Multiple supernumerary teeth are generally associated with syndromes such as chondroectodermal dysplasia, Gardner’s syndrome, cleft lip and palate, and cleidocranial dysplasia to name a few. It would be very rare to find multiple supernumerary teeth and still not having association with any syndromes.<sup>12</sup> There are very few published cases in which supernumerary teeth are present in non syndromic patients. We thereby consider the present case to be of interest.

As per morphology, four different types of supernumerary teeth are described:<sup>13</sup>

- Conical
- Tuberculate
- Supplemental
- Odontome

In our case, the supernumerary teeth seems to be of the supplemental category because as per the definition supplemental supernumerary refers to the duplication of teeth in the normal series and is found at the end of teeth series.

**Management of supernumerary teeth<sup>11</sup>**

There are two treatment protocols for management of supernumerary teeth.

- Extraction
- Monitoring without extraction

The treatment varies according to the type and position of the supernumerary tooth.

Indications for extraction

- Delayed or inhibited eruption of adjacent tooth/teeth
- Ectopic eruption of adjacent tooth/teeth
- Associated infection or pathology
- Compromising the secondary alveolar bone grafting in patients with cleft lip and palate due to its presence
- Interfering in placement of implant

Indication for follow up without extraction

- No pathology
- No orthodontic therapy to be planned in the near future
- Extraction would jeopardize the vitality of the adjacent tooth/teeth

75% of incisors erupted spontaneously soon after extraction of supernumerary teeth.<sup>14</sup>

**References**

[1]. Inchingolo F, Tatullo M, Abenavoli FM, Marrelli M, Inchingolo AD, Gentile M, Inchingolo AM, Dipalma G. Non-syndromic multiple supernumerary teeth in a family unit with a normal karyotype: case report. International journal of medical sciences. 2010;7(6):378.

[2]. Weinberger BW. An introduction to the history of dentistry. Mosby; 1948.

[3]. Liu JF. Characteristics of premaxillary supernumerary teeth: a survey of 112 cases. ASDC journal of dentistry for children. 1995;62(4):262-5.

[4]. Levine N. The clinical management of supernumerary teeth. J Can Dent Assoc 1961;28:297-303.

[5]. Sedano HO, Gorlin RJ. Familial occurrence of mesiodens. Oral Surg Oral Med Oral Pathol 1969;27:360-1

[6]. Ramsaran AS, Barclay S, Scipio E, Ogunsalu C. Non-syndromal multiple buried supernumerary teeth: Report of two cases from the english-speaking caribbean and a review of the literature. West Indian Med J. 2005;54:334-6.

[7]. Brook AH. Dental anomalies of number, form and size: their prevalence in British school children. J. Int. Assoc. Dent. Child.. 1974;5:37-53.

[8]. Kinirons MJ. Unerupted premaxillary supernumerary teeth. A study of their occurrence in males and females. British dental journal. 1982 Aug 3;153(3):110.

- [9]. Vichi M, Franchi L. Abnormalities of the maxillary incisors in children with cleft lip and palate. ASDC journal of dentistry for children. 1995;62(6):412-7.
- [10]. Jensen BL, Kreiborg S. Development of the dentition in cleidocranial dysplasia. Journal of oral pathology & medicine. 1990 Feb;19(2):89-93.
- [11]. Garvey MT, Barry HJ, Blake M. Supernumerary teeth-an overview of classification, diagnosis and management. JOURNAL-CANADIAN DENTAL ASSOCIATION. 1999 Dec;65(11):612-6.
- [12]. Scheiner MA, Sampson WJ. Supernumerary teeth: a review of the literature and four case reports. Australian dental journal. 1997 Jun;42(3):160-5.
- [13]. Mitchell L. An introduction to orthodontics. 1<sup>st</sup> ed. Oxford University Press; 1996 p.23-5
- [14]. Di Biase DD. The effects of variations in tooth morphology and position on eruption. The Dental practitioner and dental record. 1971 Nov;22(3):95.

Dr. Priyanka Tiwari. "Supernumerary Supplemental Teeth in a Non Syndromic Patient: A Rare Case Report". IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 18, no. 11, 2019, pp 78-82.