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## Exploring Supernumerary Teeth Occurrence among the Expat Patients in UAE

# Bhavna Chulliparampil Mohan<sup>1\*</sup>, Prathibha Prasad<sup>2,3</sup>, Naresh Shetty<sup>4</sup> and Manal Jamil Mohammad Al Maslamani<sup>5</sup>

<sup>1</sup>Private Practitioner, Al Afdal Medical center, Sharjah, United Arab Emirates

<sup>2</sup>Assistant Professor, Department of Basic Dental Sciences, Center of Medical and Bio-Allied Health Sciences Research, College of Dentistry, Ajman University, Ajman, United Arab Emirates

<sup>3</sup>Adjunct Faculty, Dept of Oral Pathology, Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences, Saveetha University, India

<sup>4</sup>Assistant Professor, Department of Clinical Sciences, Center of Medical and Bio-Allied Health Sciences Research, College of Dentistry, Ajman University, Ajman, United Arab Emirates

<sup>5</sup>Assistant Professor, College of Dentistry, Ajman. University

\*Corresponding Author: Bhavna Chulliparampil Mohan, Private Practitioner, Al Afdal Medical center, Sharjah, United Arab Emirates.

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## Introduction

Supernumerary teeth are defined as additional teeth to normal series of primary and permanent teeth. These additional teeth can occur anywhere in the oral cavity, presenting challenges in diagnosis and treatment [1]. The etiology of supernumerary teeth is thought to be both genetic and environmental factors like hyperactivity of dental lamina, tooth bud dichotomy, trauma, infection etc. [2, 3]. Often in regular dental practice the supernumerary tooth is often missed unless it affects the treatment process. Understanding the rate of incidence, causes, and management of supernumerary teeth helps dental practitioners to provide effective care. This is an attempt to record some cases seen among the expat patients of different nationality in the UAE.

## Case 1 Supernumerary canine

The case is of a 12-year-old female Indian patient came to the dental clinic with the chief complaint of broken upper front central incisor. The upper left central teeth was protruding and the child was advised composite filling and braces treatment for correcting this (Fig 1). On detailed analysis it was noted that there was a supplementary tooth in between the left lateral incisor and canine with its anatomy mimicking that of the canine. Radiography (Fig 2) confirmed that all other teeth are permanent teeth. Hence it was decided to remove this tooth (Fig 3) for the purpose of orthodontic correction and the child started her braces treatment thereafter.

Supernumerary canines and supernumerary lateral incisors are rare with low frequency of occurrence (2.8%) among the hyperdontia described in the literature [3].



*Figure 1:* Clinical picture showing supernumerary canine in case 1.



Figure 2: OPG of Case 1 showing supernumerary canine.



Figure 3: Extracted supernumerary canine of Case 1.

## Case 2. Case of supernumerary lateral incisor / canine.

This is a case of a 63-year-old female patient who came to the dental clinic with the chief complaint of a mobile posterior premolar. It was noted that she had an extra tooth between the right lateral incisor and canine. The teeth is conical in shape (Fig 4a and 4b). The patient was totally unaware that she had an extra supernumerary tooth in her right upper jaw till date as it never caused any misalignment or disturbance till date. The patient did not want to take an x ray.

Conical or peg shaped form is the most common type of mesiodens; followed by tuberculate and supplemental [5].



## Case 3 mesiodens in siblings

This is a case in which two siblings had mesiodens in their oral cavity. The parent came to the clinic with the chief complaint of weird shaped permanent incisors. The girl was from Afganistan, 6years old and having bilateral mesiodens. On examination the teeth were 2 conical shaped (Fig 5a). The parents gave history and past photos of normal looking primary milk teeth (Fig 5b) which exfoliated when the child was around 4 to 5 years old and the new teeth which erupted thereafter was of this shape. On checking OPG, (Fig 5c) bilateral mesiodens were noted which was extracted to aid the eruption of the permanent incisors which subsequently erupted when the child was 7 years old.



Figure 5a: At 6 years when visited with supernumerary teeth which were extracted.



*Figure 5b:* Photo from mother at 4 years with normal anatomy of milk tooth.



Figure 5c: Girl with bilateral mesiodens in OPG.

Her brother had visited the clinic along with her and it was noted that he too had a mesiodens in his upper arch and after OPG (Fig 6) was confirmed this single mesiodens between his permanent central incisors were removed. Unfortunately there are no clinical image of the brother.



Figure 6: Boy/ brother's OPG.

#### Discussion

Hyperdontia or supernumerary teeth affect the maxilla more than the mandible and shows a sex-linked inheritance pattern; males over females [6]. Supernumerary teeth are classified according to morphology and location. In the primary dentition, morphology is usually normal or conical. Four different morphological types of supernumerary teeth have been described: conical, tuberculate, supplemental and odontoma [7]. Conical or peg shaped form is the most common type of mesiodens; followed by tuberculate and supplemental [5]. Supernumerary canines and supernumerary lateral incisors are rare with low frequency of occurrence (2.8%) among the hyperdontia described in the literature [3].

Several genetic syndromes have shown a very strong association: cleidocranial dysplasia; familial adenomatous polyposis; trichorhinophalangeal syndrome, type I; Rubinstein-Taybi syndrome; Nance-Horan syndrome; Opitz BBB/G syndrome; oculofaciocardiodental syndrome; and autosomal dominant Robinow syndrome [4]. Extraction is not always the treatment of choice for supernumerary teeth. They may be monitored without removal. Management plan should be in conjunction with other abnormalities if they are present [7].

#### **Declaration/consent**

The authors have declared that the patients involved in this project have signed and submitted the consent form. The patients have also provided consent to use their pictures for publication purpose.

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#### **Conflicts of interest**

There are no conflicts of interest.

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