



RESEARCH ARTICLE

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SUPERNUMERARY TEETH IN VARIANT POSITIONS; AN OVERVIEW WITH THE CASE REPORT

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ABSTRACT

Supernumerary teeth can present in any region of the oral cavity. Their presence may give rise to a variety of clinical problems. They may remain undiagnosed and remain impacted. This article aims to present 4(four) cases with the presence of supernumerary teeth in different positions and their complications. Thus the clinician needs to diagnose it by thorough clinical and radiographic examination at the earliest to avoid any further complications.

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INTRODUCTION

Supernumerary tooth(ST)is defined as "any tooth orodontogenic structure that is formed from tooth germ in excess of usual number for any given region of the dental arch.¹ They may be unilateral or bilateral and single or multiple, in distribution, occur in any part of the tooth bearing areas in both dental arches, and may occur in primary and permanent dentition.² Supernumerary teeth is also referred as Hyperdontia as there is excess of teeth or tooth like substance of the usual configuration of twenty deciduous and thirty two permanent teeth.³ Supernumerary teeth occur in 0.3 to 3.8 percent of different population. Supernumerary teeth can occur anywhere in the dental arch, but are found most commonly in the maxilla.^{2,3} The single midline supernumerary tooth is the most common finding.⁴ The most common supernumerary tooth is the mesiodens, which usually remains impacted, almost always in the maxilla between the central incisors.

It has been suggested that Supernumerary teeth are accessory teeth that results from hyperactivity of the dental lamina.³ A familial tendency and sex linked inheritance (males being affected twice as frequently as females) has been demonstrated.⁶ Multiple supernumerary teeth is rare and usually seen in association with cleft lip or cleft palate, cleidocranial dysplasia, Gardner's syndrome.^{8,9} Supernumerary teeth can be classified according to their form and location. Primosch.⁵ They are classified according to morphology or location. According to morphology it can be:

-) Conical
-) Tuberculate
-) Supplemental
-) Odontomes

According to location it can be:

-) Mesiodens
-) Paramolar
-) Distomolar
-) Parapremolar

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CASE I

A 11-year-old boy reported to the Department of Dentistry, RIMS Ranchi with a complaint of discomfort with teeth present from inside in the upper front region. On clinical examination there was palatal eruption of two supernumerary teeth mesiodens in the 21 11 region. Due to tooth crowding in the upper front segment there was improper dental hygiene maintained and there was presence of stains and calculus. (Fig 1 a,b). The IOPA showed presence of two mesiodens in palatal region.



Fig 1 (a) Clinical view

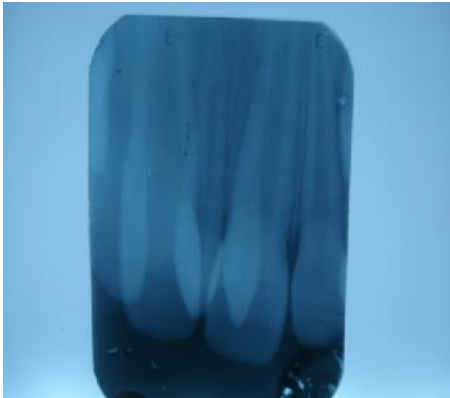


Fig 1 (b) IOPA

CASE 2

A 13 year-old male patient reported to the Department of Dentistry, Dental Institute RIMS, with complaints of pain and swelling in lower right jaw. On intraoral examination, there was presence of mixed dentition and swelling in the lower mandible extending from 43 to 46 region. FNAC was done, FNAC revealed of cystic straw coloured fluid. There was overretained 64, 65. OPG was done which showed presence of cyst in 44 to 46 region. Also surprisingly there was presence of supernumerary tooth like structure present in first third and fourth quadrant. There is root resorption of the adjacent tooth to the supernumerary tooth. The huge expansion of the cyst caused thinning of the mandible and prone to fracture on right side.



Fig 2 (a) OPG showing multiple supernumerary tooth in three quadrants



a b

Fig 3(a,b) clinical and radiographic view of mesiodens



Fig 4(a) Bilateral paramolar supernumerary teeth

CASE 3 and 4

Case 3 shows the presence of supernumerary tooth in labial position in a 16 year boy. There is ectopic eruption of the supernumerary tooth. Patient complained of discomfort while speech and aesthetics problems. The IOPA was taken which showed the presence of supernumerary tooth causing mild displacement of the central incisors.

Case 4 shows the presence of paramolars in an 18 year girl. Patient complained of mild discomfort and ulceration of the tongue on the right side. There was sharp cusp which was grinded as the patient was not willing for extraction and recalled after 6 months for regular follow up.

DISCUSSION

An unerupted supernumerary tooth may be found by chance during radiographic examination with no effect on adjacent teeth.^{9,10} Unilateral persistence of a deciduous incisor, failure of eruption or ectopic eruption of permanent incisor, a wide diastema, or rotation of erupted permanent incisors should alert the clinician to the possible presence of Supernumerary teeth^{6,7} and indicate appropriate radiographic investigation. The most useful radiographic investigation is OPG, occlusal and IOPA views. In order to localize an unerupted Supernumerary tooth or a normal tooth, the parallax method is recommended. Supernumerary teeth may erupt normally, remain impacted, appears inverted or assume an abnormal path of eruption⁸ and if complications arise, they may include the following.¹²

-)] Prevention or delay of eruption of associated permanent teeth
-)] Crowding
-)] Abnormal root development of associated permanent teeth.

-) Root resorption of permanent teeth.
-) Caries due to plaque retention in inaccessible area
-) Incomplete space closure during orthodontic treatment
-) Formation of cyst and tumor

Treatment depends on the type and position of the Supernumerary tooth and on its effect or potential effect on adjacent teeth. The management of a supernumerary tooth form part of a comprehensive treatment plan and should not be considered in isolation.^{12,13,14}

Indication for supernumerary tooth removal:

-) Central incisors eruption has been delayed or inhibited
-) Altered eruption or displacement of central incisors is evident
-) There is associated pathology
-) Active orthodontic alignment of an incisor in close proximity to the supernumerary is envisaged
-) Its presence would compromise secondary alveolar bone grafting in cleft lip and palate patients.
-) The tooth is present in bone designated for implant placement.
-) Spontaneous eruption of the Supernumerary has occurred.
-) Indication for monitoring without supernumerary tooth removal
-) Satisfactory eruption of related teeth has occurred
-) No active orthodontic treatment is envisaged.
-) There is no associated pathology
-) Removal would prejudice the vitality of the related teeth

Conclusion

Supernumerary teeth can be found in almost any region of dental arch. They may cause a variety of complications in the developing dentition. The early diagnosis and appropriate management can minimize the complication caused by Supernumerary tooth. There needs to be an awareness of the clinical signs and knowledge about the treatment options among the clinicians.

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