CASE REPORT

Clinical Management of Supernumerary Teeth: A Case Report

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Abstract
Dental Insurance is insurance designed to pay the costs associated with dental care. Dental insurance is a new concept in Southeast Asia as very few countries in Southeast Asia cover this aspect of insurance. It is important that the dentist in India should be acquainted with different type of plans these companies are going to offer and about a new relationship which is going to emerge in the coming years between dentist, patient, and the insurance company.


Key words: Management, Mesiodens, Supernumerary, Supplemental tooth

Introduction
Presence of an extra tooth in the dental arch in addition to the normal series of teeth is called supernumerary tooth. It may closely resemble the teeth of the group to which it belongs, i.e. molars, premolars or anterior teeth, or it may bear little resemblance in size or shape to which it is associated.1

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

Supernumerary teeth can be classified according to their form and location. Primosch5 classified supernumeraries into two types according to their shape: supplemental and rudimentary. Supplemental refers to supernumerary teeth of normal shape and size and may also be termed incisiform. Rudimentary defines teeth of abnormal shape and smaller size, including conical, tuberculate and molariform.5,6,7

It has been found that approximately 25% of the permanent supernumerary teeth are erupted and the remainder are unerupted, whereas 73% of the primary supernumerary teeth are erupted.6,8

Many complications can be associated with supernumeraries, like impaction, delayed eruption or ectopic eruption of adjacent teeth, crowding, development of median diastema and eruption into the floor of the nasal cavity. This may also

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cause formation of follicular cysts with significant bone destruction and root resorption of the permanent incisors.\textsuperscript{7,9} When any of the above complication occurs or is anticipated, surgical removal of the supernumerary tooth is indicated.

**Case Report**

A 13-year-old girl reported to the Department of Pedodontics, SPPGIDMS, Lucknow, with complaint of a funny-looking, two teeth present between the upper two front teeth. On intraoral examination, one supernumerary tooth was seen between the upper two permanent central incisors and a mesiodens was seen palatally between upper two permanent central incisors. The upper left central incisor was buccally placed. Minor crowding of the lower arch was also seen. Dentition stage was permanent. Orthodontic consultation was taken. It was decided to extract the supernumerary teeth, followed by orthodontic closure of diastema. The supernumerary teeth were extracted under local anesthesia [Figure 1a,b],[Figure 2],[Figure 3].

A total of 11.5 mm of space was created between the upper central incisors. Hence for the alignment of the upper arch, upper and lower impressions were taken, cast were fabricate and split labial bow delivered to the patient. The labial bow was activated every 15th day [ Figure 4].

![Figure 1a: Extra oral Preoperative photograph of patient.](image1)

![Figure 1b: Intra oral Preoperative photograph showing supernumerary teeth between 11, 21.](image2)

![Figure 2: Administration of local anesthesia](image3)

![Figure 3: Post extraction](image4)

![Figure 4: Removable Split labial bow](image5)

Four months later, enough closure of the central incisors had been achieved to allow bonding of the central incisors but left central incisor was slightly buccally placed. Then again upper and lower impressions were made and hawley's appliance was fabricated and delivered to the patients. Two months later, the buccally placed central incisors had been aligned [Figure 5].
After completion of alignment of the incisors [Figure 6], the patient was referred to the Department of Orthodontics for the completion of orthodontic treatment.

Discussion

There are many etiological factors in the development of a median diastema and most have been investigated to some degree. A study by Gass et al. has suggested there may be genetic susceptibility to the development of midline diastema. The presence of supernumerary teeth and their effect on the developing occlusion has been investigated by numerous authors, but notably, Nik-Hussein found that a high proportion (38%) of patients with supernumerary teeth had delayed or failed eruption of permanent teeth. Tay et al. had previously reported that, where supernumeraries were normally orientated, delayed eruption was likely to occur, whereas inverted supernumeraries were more likely to be associated with bodily displacement of the permanent incisors, median diastema and torsiversion. The presence of an extra tooth has great potential to disrupt normal occlusal development, and early intervention to remove it is usually required to obtain reasonable alignment and occlusal relationship.

If the permanent teeth have been displaced, surgical exposure, adjunctive periodontal surgery and, possibly, mechanical traction are likely to be required. Extraction should be completed as soon as the supernumerary teeth can be removed without harming the developing normal teeth.

In the present case, the most common complication is displacement of central incisors. The treatment was aimed at extraction of supernumerary teeth followed by extensive orthodontic treatment as the patient also had buccally placed upper left central incisor and inadequate arch length.

Early diagnosis and treatment of patients with supernumerary teeth are important to prevent or minimize complications. Treatment depends on the type and position of the supernumerary tooth and its effect on the adjacent teeth.

Conclusion

Supernumerary teeth are relatively common and present a variety of complications. The clinician should have thorough knowledge of signs suggesting the presence of supernumerary teeth including non- or delayed eruption, alterations in the eruptive pattern, diastema formation, midline shift, and crowding. On appropriate diagnosis, early intervention is required in the form of surgical or orthodontic treatment and combination in order to minimize unwanted side effects to the developing dentition. The case described above represent a small sample of the possible presentations for cases involving supernumerary teeth.

References


