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Buried beneath: A rare mandibular case of impacted supernumerary teeth: Case report

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Abstract
In clinical settings, abnormalities in dental traits such size, form, quantity, structure, and eruption are frequently seen. The existence of extra teeth in different parts of the dental arch is one example of this oddity. Supernumerary teeth are routinely detected during radiographic assessments, despite the fact that they are often asymptomatic. A woman who was seven years and four months old was diagnosed with a mandibular canine eruption disruption brought on by an extra tooth. In order to bring the canines into occlusion, orthodontic backets were inserted after the additional teeth were pulled when the patient was seventeen years old. In order to promote appropriate permanent tooth eruption, this research emphasizes the significance of a comprehensive strategy for managing excess teeth by prompt extraction and space maintenance.

Keywords: Impacted mandibular supernumerary teeth, CBCT, OPG, tooth eruption, impacted latera incisor

Introduction
"Any tooth or odontogenic structure that is formed from a tooth germ in excess of the usual number for any given region of the dental arch" is the definition of supernumerary teeth. One They can appear in both dental arches, in the primary mixed or permanent dentitions, and they can be unilateral or bilateral in distribution. The most frequent supernumerary tooth is the "mesiodens," which is followed by mandibular premolars, which are supplemental supernumerary teeth [2-4]. At a 2:1 ratio, males are more likely than females to be impacted [5, 6]. Although a number of theories have been put up to explain the phenomenon of extra teeth, it is still unknown what causes them [1, 7].
They can be found in any part of the dental arch and vary in size, shape, and placement. [8]. They typically have a conical shape in the primary dentition, although they can have different shapes in the permanent dentition [9]. They fall into one of three categories: distomolar (located distally to the third molar), paramolar (located buccally between the second and third molars), or mesiodens (located in the midline) [10]. Depending on where they are located, early detection and proper care are essential to reducing or avoiding the effects of extra teeth, which can include crowding and "cyst formation." The main and most crucial tool for diagnosing an impacted tooth is clinical diagnosis [11, 12].
When it comes to diagnosis and treatment planning, the location of extra teeth is crucial, particularly if surgery is necessary [13]. Clinical and radiological evaluations are used to determine the location of an unerupted tooth [14]. It may be possible that less invasive surgery will be required if the location of extra teeth is more precise. A unique example of a patient with an impacted canine (43,33), lateral incisor (32) and supernumerary teeth is presented in this paper.

Case Report
The orthodontist "referred" a 17-year-old Indian girl with normal facial features and no related syndromes reported to the Department of Oral and Maxillofacial Surgery at Pacific Dental College and Hospital in Debari, Udaipur, Rajasthan, India, for evaluation because she had an

extra tooth. The patient was receiving orthodontic treatment and did not complain of any pain. Three extra teeth in the symphysis region were discovered "during the clinical examination and analysis of the panoramic radiograph previously taken by the patient." Cone beam computed tomography (CBCT) was requested for the patient in order to assess the supernumerary tooth's three-dimensional location and relationship to neighbouring structures. Three extra teeth were seen on the sagittal sections, and each of them was impacted.

The canine (43, 33), lateral incisor (32) and all three extra teeth were impacted vertically. Written consent was obtained after the patient was fully told about the surgery. The patient was painted and draped, and then the bilateral inferior alveolar nerve block, LA with adrenaline (1:80000), and buccal local infiltration were performed. Anterior and posterior releasing incisions were made alongside a crevicular incision. The flap was lifted, revealing the surgical site. Guttering was completed with the use of a straight handpiece and round bur, exposing the lateral incisor, canine, and impacted supernumerary teeth. After the lateral incisors and additional teeth were removed, hemostasis was attained. Analgesics, anti-inflammatory medications, and mouthwash containing chlorhexidine were recommended.

Figures

Fig 1: Preoperative Intraoral Profile

Fig 2: Orthopantomogram and CBCT resembling impacted supernumerary teeth and bilateral mandibular canine, lateral incisor.

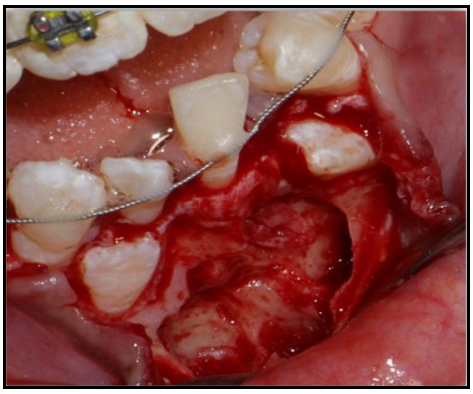

Fig 3: Composite splinting i.r.t 45-35. Extraction of impacted Supernumerary teeth, lateral incisor.

Fig 4: Three Month Follow up Profile

Fig 5: Post operative Orthopantomogram after 5months.

Discussion

The uncommon instance of a patient with three "supernumerary dysmorphic teeth" is described in this study. Supernumerary teeth are those that develop outside of the typical sequence. Because the patient found it difficult to maintain correct cleanliness and occlusion due to the location and arrangement of the extra teeth, surgical extraction was the recommended course of treatment [15]. The most often acquired radiographs to assess the orientation and position of extra teeth are CBCT and OPG. The location of the extra teeth allows for the planning of the flap margins' location and extension as well as the quantity of bone removed before surgery. Although OPG typically offers the necessary information, these modalities don't always offer enough

details for surgical planning on the three-dimensional relationship between the extra teeth and the surrounding structures.

[16] Cone-beam computerized tomography, or CBCT, has opened up new diagnostic options in dentomaxillofacial radiology, including the assessment of extra teeth. "CBCT's high radiation dosage, low vertical resolution, and high cost have limited its use." The use of CBCT images in orthodontics, pediatric dentistry, dental implantology, and oral and maxillofacial surgery has been approved by numerous published studies and case reports "due to their measurement accuracy, comparisons between 2-D and 3-D images for diagnosis and treatment planning, and the clinical use of native 3-D information." The preventative extraction of extra teeth that have not yet erupted and show no signs of pathological problems is a topic of debate.

Early removal has been proposed as a way to avoid future significant orthodontic treatment and space loss [17]. Knowing the precise location of extra teeth in a juvenile kid is crucial to preventing any problems. A guideline for the detection and location of extra teeth in two and three dimensions was put forth by Toureno *et al*. [18]. Periodic follow-up evaluations are crucial in preventing postoperative problems in cases of impacted supernumerary tooth extraction. This case's post-operative follow-up revealed positive clinical development.

Conclusion

Additional teeth, which result in In order to give the patient a favourable outcome, the practitioner must use a cautious and multispecialty approach to treating supplemental teeth that cause dental impaction. Therefore, early orthodontic and surgical intervention is frequently required to reduce the adverse effects of delayed tooth eruption brought on by extra teeth. In terms of improving our comprehension of the effects of extra teeth on dental growth and eruption patterns, this instance is excellent.

Since the patient described had no concomitant condition, she is atypical in comparison to other cases that have been presented. In order to effectively manage dental anomalies related to impaction caused by extra teeth, our case emphasizes the importance of early identification, interdisciplinary collaboration, and suitable treatment planning [19]. It is uncommon for a non-syndromic patient to have three extra dysmorphic teeth in the mandibular anterior region. Only with the assistance of CBCT was this diagnosis made, and the best course of treatment was determined. The patient was able to successfully manage their orthodontic treatment after the extra teeth were surgically removed [20].

Conflict of Interest

Not available

Financial Support

Not available

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