



## Serendipitous Diagnosis of Impacted Mesic Dense in Two Generations: A Case Series

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### KEYWORDS

Inverted mesiodens, impaction, exodontia.

### ABSTRACT:

The surgical extraction of an unilaterally impacted mesiodens abutting the nasal floor and in an inverted position presents unique challenges due to its anatomical complexity. This case report discusses the diagnostic approach, surgical planning, and techniques used to successfully extract the mesiodens, emphasizing the importance of preoperative imaging and multidisciplinary collaboration. Critical structures, including the nasal cavity and maxillary sinus, were carefully preserved. Post-operative monitoring ensured successful recovery without complications. This report highlights the need for precision in managing complex mesiodens impactions to minimize patient risk and improve outcomes.

### 1. Introduction



Mesiodens are supernumerary teeth present in the maxillary central incisor region. The prevalence of mesiodens has been reported to be approximately 1.4-3%. [1] They account for 86.3-90% of all supernumerary teeth. Although some asymptomatic mesiodens are detected during routine clinical and radiographic examinations, they are often detected in disorders pertaining to permanent tooth eruption or dental malpractice. [1] They can lead to crowding, delayed or prevented eruption, of central incisors, diastema, root resorption, axial rotation and cyst formation. [2]

In rare cases, mesiodens may present in an inverted position and become impacted near the nasal floor. The extraction of such teeth poses unique challenges, particularly due to proximity to vital structures such as the maxillary sinus, nasal cavity, infraorbital nerve and palatine nerves and vessels, thus increasing the risk of complications during surgery. [3]

### 2. Case 1

A 12 year old male patient presented to Saveetha Dental College with the chief complaint of irregularly placed teeth in the upper front tooth region. No relevant medical, surgical or family history was present. Clinical examination revealed crowding with respect to the upper and lower anteriors and proclination in relation to the upper anteriors.



An orthopantomogram(OPG) was taken and Cone Beam Computed Tomography (CBCT) was done for further



evaluation and diagnosis. OPG revealed an inverted impacted mesiodens periapical to 11. CBCT revealed an impacted supernumerary tooth palatal to 11 which was vertically oriented with crown towards the nasal floor and dilacerated root towards the palatal mucosa. Tip of the tooth was noted abutting the floor of the nasal cavity.

Surgical extraction of the impacted mesiodens was done under conscious sedation. A vestibular incision was placed followed by flap elevation and bone guttering. The tooth was identified and extracted. Closure was done using 3-0 vicryl sutures. The patient was prescribed a full dose of antibiotics and was advised to maintain strict oral hygiene. A follow up was done at 1 week interval and the healing was observed to be satisfactory. The procedure was performed by an experienced oral and maxillofacial surgeon. The surgery was smooth and no complications were incurred.

### 3. Case 2

An 81 year old patient presented with the chief complaint of missing teeth in the upper and lower arches and wanted replacement for the same. No relevant medical, surgical or family history was present. Clinical examination revealed complete edentulousness in the upper and lower arches.

CBCT was done for further evaluation and diagnosis which then revealed the presence of an impacted supernumerary tooth palatal to 11 following which, he was referred to the department of oral and maxillofacial surgery.

Surgical extraction of the same was done under general anaesthesia employing midline along with bilateral relieving incisions in order to facilitate further prosthodontic rehabilitation. The surgery was smooth with no intra or post operative complications.



### 4. Discussion



The extraction of an inverted unilaterally impacted mesiodens near the nasal floor presents unique challenges due to its proximity to vital anatomical structures, such as the maxillary sinus and nasal cavity. In this case, meticulous surgical planning was critical to avoid complications like sinus perforation, nasal floor damage or nerve injury. The inverted position of the mesiodens complicated the approach requiring precise angulation and controlled force during extraction. Early diagnosis through radiographic imaging facilitated a strategic extraction plan, reducing post operative complications and enhancing recovery. Managing such cases underscored the importance of multidisciplinary collaboration between oral surgeons, radiologists and orthodontists. Post operative care is essential to monitor for potential complications including sinusitis, oral antral fistula or nerve damage and to ensure optimal healing of the surrounding structures. Successful management of such cases contributes to minimising the risk of future malocclusion, infection or resorption of adjacent teeth. This case highlights that although rare, impacted inherited mesiodens near the nasal floor requires specialize techniques and preoperative imaging for safe and effective surgical management.

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