IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 20, Issue 4 Ser.6 (April. 2021), PP 06-08
www.iosrjournals.org

Ectopic Intranasal Inverted Unerupted Tooth – A Rare Case Report

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ABSTRACT
Supernumerary tooth is an additional tooth to the normal series, found in the region of the dental arch. A mesiodens is a supernumerary tooth located between two maxillary central incisors.[3]*However, an inverted mesiodens in an ectopic location is a rare entity.*[4] *These can be found in patients presenting with symptoms depending on the anatomical ectopic location of the tooth, or can be an incidental finding on dental radiographs, C.T.scans or intranasal operative procedures.*[5]*In this case report we discuss a case of an inverted unerupted tooth in the nasal cavity of a male patient who came to D. Y. Patil Medical College, Navi Mumbai on 11.02.2020. Thisreport describes the clinical presentation, radiological findings, and treatment strategy that was undertaken.*

Date of Submission: 29-03-2021 Date of Acceptance: 12-04-2021

I. Case Description

A 39yearold male who had 4-5 episodes of right sided mild nasal bleed with an intranasal massfor the past two months, was referred to the otolaryngology clinic. The patient gave history of nose picking. On examination, a pinkish mass with a smooth surface, surrounded by minimal granulation tissue and dried blood clots was noted on the floor of the right nasal cavity. His intraoral dentition was normal. No history of nasal obstruction, purulent discharge, foul smell, facial trauma, maxillofacial surgery was elicited, and the patient's general medical history was unremarkable.

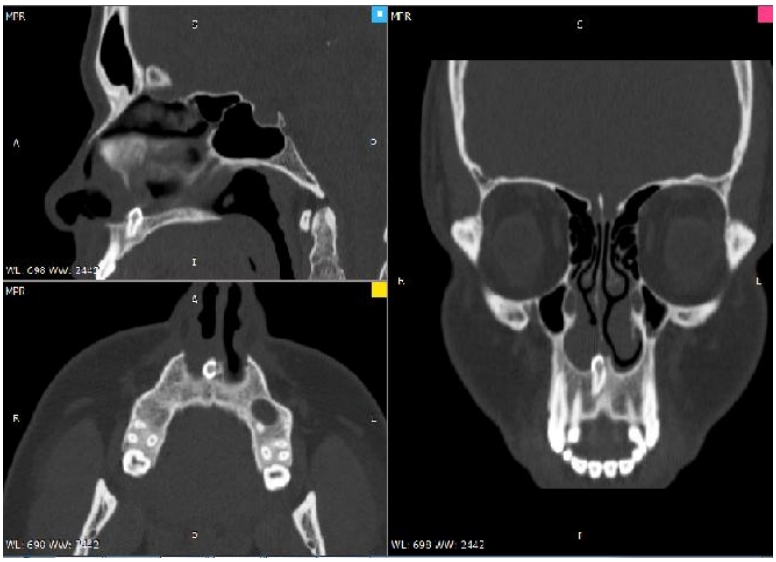
CT scan was helpful in further planning and management. CT PNS plain with contrast study revealed a 2.3 x 1.1 cm sized soft tissue density area involving the anterior part of the right nasal cavity abutting the lateral nasal wall, inferior turbinate, and nasal septum with minimal post contrast enhancement. No obvious bony defect was noted. An inverted intranasal unerupted conical shaped tooth with its crown projecting into the nasal cavity, and the root embedded in the anterior part of the right maxillary process abutting the incisive canal was noted beneath the soft tissue density (as aforementioned).

The patientunderwent excision of the soft tissue overlying the inverted intranasal unerupted tooth under general anesthesia. However, the tooth was not extracted during the procedure. On follow up of the patient, the procedural site had healed adequately, and the patient was asymptomatic. Patient was advised consultation on recurrence of symptoms, during which further invasive procedures with the assistance of maxillofacial surgeons would be considered.

II. Images

CT PNS in soft tissue window (sagittal, axial and coronal views) showing soft tissue density area in the right nasal cavity.

CT PNS with contrast sagittal, axial and coronal views) shows mild enhancment of the soft tissue density lesion.



CT PNS in bone window (sagittal, axial and coronal views) showing an ectopic inverted tooth underneath the soft tissue mass with the crown protruding into the right nasal cavity.

III. Discussion

Supernumerary teeth were most frequently observed in the inverted orientation, in the central incisor palatal region,\ and were most commonly conical in shape.[6]The etiology of an ectopic inverted unerupted tooth is not exactly known.[7] However, few theories have been proposed such as the theory of developmental origin which states that ectopic eruption may occur either due to reversion to the dentition of extinct primates who had three pairs of incisor teeth. Another theory which stated that there could be a defect in migration of neural crest derivatives destined to reach the jaw bones. Also, ectopic tooth could be a result of a flaw in the multistep epithelial–mesenchymal interaction.[8]

Ectopic teeth may be found anywhere in the maxillofacial region and elsewhere in the body; the palate and maxillary sinus are the most common sites due to their anatomic proximity to the alveolus. Other relatively rare sites are the nasal cavity, orbit, mandibular condyle, coronoid process, facial skin, ethmoid sinus and teratomas in ovary, testes, anterior mediastinum and presacral region.[9] Cases of ectopic tooth eruption have been found to be associated with conditions like cleidocranial dysplasia, Gardner syndrome, orofacial-digital syndrome and cleft lip and palate.[1011]

Ectopic tooth could be impacted or erupt spontaneously.[12] In our case report we have mentioned an unerupted ectopic tooth in the nasal cavity.

Diagnosis of an ectopic tooth depends on the clinical presentation and radiological evaluation. The patients could present with a wide variety of symptoms, such as rhinorrhoea, nasal obstruction, facial pain, deformity in the nasal cavity, recurrent epistaxis (seen in our case), foul smell in the nose and mouth, nasal septal abscess and osteomyelitis of maxilla.[13]

Treatment of the ectopic tooth depends on various factors. Asymptomatic patients with an ectopic tooth with satisfactory eruption of related teeth or with no associated pathology or with risk of damage to the vitality

of the related teeth are advised follow up without removal. Surgical management in adults, if required is considered only after appropriate CT evaluation of the ectopic tooth to relieve the symptoms, if it causes interference with orthodontic appliances or spontaneous eruption of the supernumerary tooth. [14] At a younger age however, treatment options are considered early in order to prevent complications like malocclusions, diasterna formation, delayed or inhibited eruption of central incisor, altered eruption or displacement of central incisors.[15]in patients with cleft lip and cleft palate early surgical intervention is considered.[16]

IV. Conclusion

A rare entity like an ectopic inverted intranasal tooth should be considered and evaluated keeping the age of the patient, related symptoms, presentations and pathologies in mind for which appropriate radiological examination followed by proper decision making with regard to conservative or surgical approach needs to be made.

CONFLICT OF INTEREST
Not identified

REFERENCES

[1]. Vishakha Patel is a First-Year Radiology Resident at Dr. D. Y. Patil Medical College, Navi Mumbai, Maharashtra.
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[3]. G. Aoun & I. Nasseh, *Mesiodens Within the Nasopalatine Canal: An Exceptional Entity*, 6(4) Clin Pract. (2016), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5294929/.
[4]. E. B. Saleh & M. R. Philip, *An Inverted Impacted Mesiodens Perforating the Nasal Floor with an Impacted Canine*, 5(1) International Journal of Oral and Dental Health (2019), https://clinmedjournals.org/articles/ijodh/international-journal-of-oral-and-dental-health-ijodh-5-082.php?jid=ijodh.
[5]. T. E. Kose et. al., *Two Cases of Inverted Ectopic Teeth in Maxillary Sinus*, 3(1) Anatomy Physiology & Biochemistry International Journal (2016), https://juniperpublishers.com/apbij/pdf/APBIJ.MS.ID.555563.pdf.
[6]. Jung YH, Kim JY & Cho BH, *The Effects of Impacted Premaxillary Supernumerary Teeth on Permanent Incisors*, 46(4) Imaging Sci. Dent. (2016), https://pubmed.ncbi.nlm.nih.gov/28035303/.
[7]. A. AlMuhim et. al., *Ectopic Intranasal Canine Tooth in a Child: A Rare Case Report and Literature Review*, International Journal of Surgery Case Rep. (2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6374693/.
[8]. M. Agrawal et. al., *Intranasal Tooth: Ectopic Eruption 1 Year After Maxillofacial Trauma*, B.M.J. Case Reports (2014).
[9]. Y.K. Gupta & N. Shah, *Intranasal Tooth as a Complication of Cleft Lip and Alveolus in a Four Year Old Child: Case Report and Literature Review*, 11(3) International Journal Paediatr Dent. (2001), https://pubmed.ncbi.nlm.nih.gov/11484473/
[10]. A. Chen et. al., *Nasal Teeth: Report Of Three Cases*, 23(4) American Journal of Neurology (2002), http://www.ajnr.org/content/23/4/671.
[11]. P. Virk et. al., *Tubercular Intranasal Mesiodens In Oro-Facial-Digital Syndrome*,. 32 Pakistan Oral Dent. J. (2012), https://www.researchgate.net/publication/262011307_TUBERCULAR_INTRANASAL_MESIODENS_IN_ORO-FACIAL-DIGITAL_SYNDROME.
[12]. A. Subasioglu et. al., *Genetic Background Of Supernumerary Teeth*, 9(1) Eur. J. Dent.(2015), https://pubmed.ncbi.nlm.nih.gov/25713500/.
[13]. P.S. Murty et. al., *Supernumerary Nasal Teeth*, 67(2) Ear Nose Throat J. (1988), https://europepmc.org/article/med/3349960.
[14]. D. Munns, *Unerupted Incisors*, 8(1) Br. J. Orthod. (1981), https://pubmed.ncbi.nlm.nih.gov/6944106/.
[15]. G.S.Taylor, Characteristics of Supernumerary Teeth in the Primary and Permanent Dentition,22(5) Dent. Pract. Dent. Record (1972), https://pubmed.ncbi.nlm.nih.gov/4506832/.
[16]. *supra* note 9.