

Extraction of Supernumerary Nasal Tooth by Endoscopic Approach

Abstract

The occurrence of the supernumerary tooth in the nasal cavity is uncommon. If not diagnosed and treated early, it may lead to various complications. Nasal endoscopy not only helps in proper diagnosis but also is an effective approach towards the extraction of the nasal tooth. It increases precision and reduces morbidity associated with the surgery.

Keywords: Ectopic supernumerary teeth, endoscopy, nasal teeth

Introduction

The presence of extra teeth in addition to the normal dental formula is known as supernumerary teeth. Those that are similar to the normal series are referred to as supplemental teeth and the ones with variation in shape and size are further classified as tuberculate or conical accessory supernumerary teeth. The ectopic eruption is one of the common complications of supernumerary teeth.^[1] The presence of ectopic supernumerary teeth in the nasal cavity is a rare occurrence. Patients with nasal tooth may have signs and symptoms such as epistaxis, paranasal sinusitis, nasal septal deviations, nasal septal abscess, rhinitis caseosa with septal perforation, aspergillosis, and oral-nasal fistula. It may also act as a nidus for mineralization in the nasal cavity surrounded by calcified material and chronic infected tissue.^[2]

This report presents a case of ectopic supernumerary tooth in the nasal cavity and its management with the aid of endoscopy.

Case Report

A 44-year-old male patient reported to the clinic with the chief complaint of nasal obstruction in the left nostril and feeling of hard mass inside the nasal cavity for 3 years. The patient's medical history was unremarkable, and there was no previous history of maxillofacial trauma or surgery. Anterior rhinoscopy revealed a white mass in the left nasal cavity. On

probing, it was hard in consistency and was found to be firmly attached to the floor of the nasal cavity. On intra-oral examination, his dentition was found to be normal. Panoramic radiograph revealed a well-defined radio-opaque elongated structure in the floor of the left nostril. Radiograph of the paranasal sinuses showed a radio-opaque shadow in the left nasal cavity. Computed tomography (CT) scan revealed a smooth mass located on the floor of the left nasal cavity between the inferior turbinate and the nasal septum [Figure 1a and b]. Nasal endoscopy showed a grayish white mass between the inferior turbinate and the septum surrounded by granulation tissue and necrotic debris in the left nasal cavity [Figure 1c]. A provisional diagnosis of the ectopic tooth was made, and the extraction of the tooth was planned. The patient underwent trans-nasal endoscopy of the left nostril under local anaesthesia for the removal of the nasal mass [Figure 1d and f]. The gross specimen resembled a conical-shaped tooth [Figure 1e]. Histopathological examination revealed well-organized enamel and dentin with pulp cavity in the centre. At 6 weeks of follow-up, the patient was asymptomatic and no mucosal abnormalities were observed.

Discussion

The incidence of supernumerary teeth has been found to range from 0.1%–1%.^[3] They can be found in sites outside the oral cavity like the maxillary sinus or the palate. The less frequently affected sites in the maxillofacial region that have been

**Tanzeem Ahmed¹,
Samsuddin Ahmed²,
Nikhil Kaushal¹**

¹Kaushal Dental Care Centre, Delhi, India, ²Department of ENT, Military Hospital, Secunderabad, Telangana, India

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Address for correspondence:

Dr. Tanzeem Ahmed,
P3D Hanuman Temple Complex
Pocket 1, Trimulgherry,
Secunderabad - 500 015,
Telangana, India.
E-mail: tanzeemahmed@gmail.com

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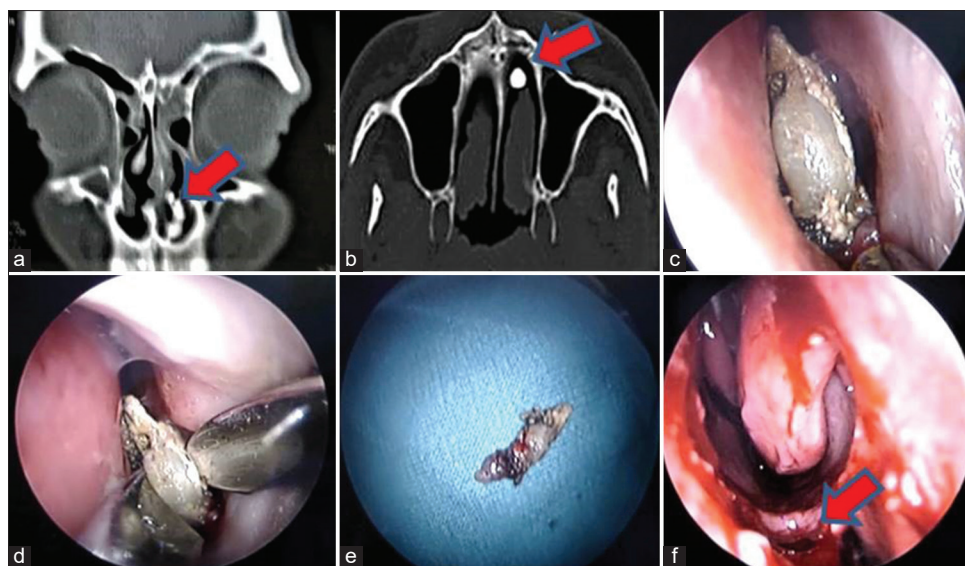


Figure 1: (a and b) Coronal and axial computed tomography scan showing radio-opaque mass in left nasal cavity. (c) Nasal endoscopy showing a greyish white mass with necrotic debris in left nasal cavity, (d) Removal of the nasal mass, (e) extracted tooth, (f) Postextraction photograph showing the extraction socket in the left nasal cavity

reported in the literature are the mandibular condyle, coronoid process, orbits, facial skin, and nasal cavity.^[4] There are various theories that have been put forward to explain the phenomenon for the ectopic eruption of teeth which includes the theory of developmental origin occurring due to reversion to the dentition of extinct primates having three pairs of incisor teeth, disturbance in the migration of neural crest derivatives destined to reach the jawbones or defect in the epithelial-mesenchymal interaction. Other causes include genetic factors, cleft lip and palate, trauma or cystic lesions leading to tooth displacement.^[3] Intranasal teeth can be asymptomatic and diagnosed incidentally during routine examination. However, some patients show signs and symptoms such as pain, nasal obstruction, purulent, or blood-tinged rhinorrhea.^[2,5] Diagnosis is made on the basis of clinical examination and radiographic investigation. Clinically, nasal tooth may be seen as a white mass surrounded by granulation tissue and debris; completely or incompletely embedded in the nasal mucosa.^[6] On the radiograph, it is seen as a radio-opaque lesion. The CT scan helps to further evaluate the lesion. Rhinolith, foreign body, inflammatory lesions due to syphilis, tuberculosis, or fungal infection with calcification; chondrosarcoma, osteoma, hemangioma, calcified polyps, dermoid, and enchondroma, are the differential diagnosis of nasal tooth.^[3] Histopathological examination can confirm the diagnosis. Endoscopy provides good illumination, clear visualization, and precise dissection with reduced postoperative morbidity and can be managed as a day-care procedure.^[2,5]

There are very few cases in the literature reported describing the extraction of intranasal teeth by endoscopic approach and they all show encouraging

results (Kim *et al.* 2003, Lee 2001, Kirmeier *et al.* 2009, Lin *et al.* 2004).^[7-9]

In the present case, the intranasal tooth was extracted successfully with the help of endoscope without any damage to the adjacent structures. The patient was discharged on the same day. The postoperative healing was uneventful.

Conclusion

Trans-nasal endoscopy in the management of intranasal teeth is a minimally invasive approach towards the extraction of an ectopic tooth in the nasal cavity.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

References

- Subasioglu A, Savas S, Kucukyilmaz E, Kesim S, Yagci A, Dundar M. Genetic background of supernumerary teeth. *Eur J Dent* 2015;9:153-8.
- Lee FP. Endoscopic extraction of an intranasal tooth: A review of

- 13 Cases. *Laryngoscope* 2001;111:1027-31.
3. Chen A, Huang JK, Cheng SJ, Sheu CY. Nasal teeth: Report of three cases. *AJNR Am J Neuroradiol* 2002;23:671-3.
 4. HFd O, Vieira MB, Buhaten WM, Neves CA, Seronni GP, Dossi MO. Tooth in nasal cavity of nontraumatic etiology: uncommon affection. *Int Arch Otorhinolaryngol* 2009;13:201-3.
 5. Kim DH, Kim JM, Chae SW, Hwang SJ, Lee SH, Lee HM. Endoscopic removal of an intranasal ectopic tooth. *Int J Pediatr Otorhinolaryngol* 2003;67:79-81.
 6. Smith RA, Gordon NC, De Luchi SF. Intranasal Teeth. Report of two cases and review of the literature. *Oral Surg Oral Med Oral Pathol* 1979;47:120-2.
 7. Sanei-Moghaddam A, Hyde N, Williamson P. Endoscopic removal of a supernumerary tooth from the nasal cavity in an adult. *Br J Oral Maxillofac Surg* 2009;47:484-5.
 8. Kirmeier R, Truschneegg A, Payer M, Malyk J, Daghighi S, Jakse N. The supernumerary nasal tooth. *Int J Oral Maxillofac Surg* 2009;38:1219-22.
 9. Lin IH, Hwang CF, Su CY, Kao YF, Peng JP. Intranasal tooth: Report of three cases. *Chang Gung Med J* 2004;27:385-9.