

INTRANASAL ECTOPIC ERUPTION OF TOOTH; A RARE CASE REPORT

Pedodontics

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ABSTRACT

The intranasal tooth is an uncommon encounter in clinical practice. The clinical manifestations of an intranasal tooth may vary. Patients can be asymptomatic and diagnosed on routine clinical and radiological examination. Symptomatic patients complain of hyposmia, nasal obstruction, chronic sinusitis, rhinorrhea, a nasal mass, headache and facial pain. Here, we report a case of ectopic eruption of upper primary central incisor intranasally.

KEYWORDS

Intranasal teeth, eruption

INTRODUCTION

The eruption of tooth ectopically can seen in different locations in the head region and in other regions of the body. Tooth have been reported to erupt into the maxillary sinus, mandibular condyle, coronoid process, orbit, palate, chin and skin, and have also been found in the ovaries, testes, anterior mediastinum, retroperitoneal area, and the presacral and coccygeal regions^(1,2). The presence of supernumerary or ectopic teeth is not an uncommon fact, which occurs in 1% of the general population. However, the presence of teeth in the nasal cavity is a rare phenomenon, regardless of etiology⁽³⁾.

The exact etiology of eruption of a tooth into the nasal cavity remains uncertain. Certain theories have been proposed to explain this. Those include theory of developmental origin, which states that ectopic eruption may occur either due to reversion to the dentition of extinct primates having three pairs of incisor teeth, defect in migration of neural crest derivatives destined to reach the jaw bones, or due to a flaw in the multistep epithelial-mesenchymal interaction⁽⁴⁾.

Other causes that can cause intranasal ectopic eruption are cleft palate; teeth displaced by trauma or cysts; displacement of a developing tooth secondary to a maxillary infection, either odontogenic or rhinogenic; hereditary factors, including Gardner's syndrome and cleidocranial dysostosis; obstruction of downward eruption secondary to crowding of dentition, persistent deciduous teeth, or exceptionally dense bone; and the root of an unusually long tooth projecting into the nose⁽⁵⁾.

Complications that can happen due to an ectopic teeth are naso-oral fistula, rhinitis caseosa with perforation, external nasal deformities and fungal infections such as aspergillosis. The clinical and radiological examination helps in diagnosing intranasal tooth^(5,6).

Removal of an intranasal tooth is the main treatment modality employed by majority of individuals with the aim of alleviating symptoms and preventing complications⁽⁸⁾. The purpose of this paper is to report a case of ectopic eruption of a tooth into the nasal cavity

CASE REPORT

A 2.5year old patient accompanied by parent was referred from department of oral and maxillofacial surgery to the department of Paediatric and preventive dentistry P.M.N.M dental college, bagalkot for the extraction of intranasal tooth over the right nostril region. Intranasal tooth was associated with nasal irritation and nasal obstruction in the region of complaint.

History revealed that patient was having cleft of lip, alveolus, hard and soft palate on the right side by birth and underwent cheiloplasty at the age of 8months.

Extra oral examination revealed the presence of intra nasal teeth teeth

over the right nostril region. (51) and scar over the right upper lip region(Figure 1,2)

Intra oral examination revealed presence of cleft of of hard and soft palate on the right side and edentulous area in the region of 51(Figure 3)

Radiographic imaging (IOPA), showed a radiopaque mass similar to an incisor tooth on the right nasal cavity (Figure 4)

Since the patient was from a poor socioeconomic background they were not ready for other radiographic imaging to confirm the position of teeth After getting consent from the parent extraction of the nasal tooth was carried out under local anaesthesia. The extracted tooth was having a normal size like central incisor (51)(figure 5). The patient is under follow up for primary palatoplasty



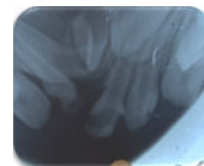
FRONTAL VIEW



LATERAL VIEW



CLEFT OF OF HARD
AND SOFT PALATE
ON THE RIGHT SIDE



RADIOGRAPH SHOWING
THE INTRANASAL
TOOTH(51)



POST EXTRACTION
PHOTOGRAPH



POST OPERATIVE
EXTRAORAL PHOTOGRAPH

DISCUSSION

Intranasal tooth eruption is a rare phenomenon, commonly seen in males and around half of all patients are diagnosed before adulthood. They can be supernumerary, deciduous, or permanent. Supernumerary teeth occur more commonly intranasally than deciduous or permanent teeth. Several factors predisposed as causes for this such as dental trauma, maxillary osteomyelitis, and development of a defect such as cleft palate, nasal infections and genetic factors^(9,10). In children, intranasal ectopic teeth occur more frequent in patients with cleft lip and alveolus^(1,10).

Based on other case reports, most of the intranasal teeth appear as a unilateral single tooth in the nasal cavity rather than multiple teeth in the nose or teeth in both nasal cavities⁽⁸⁾.

In our case, ectopic eruption of maxillary right primary central incisor has occurred due to the cleft lip and palate which was present by birth.

In asymptomatic cases the intranasal tooth may be seen accidentally as a dense radiopaque shadow on radiology. But commonly it presents with variety of symptoms including facial pain, headache, nasal obstruction, nasal discharge, nasal bleeding, recurrent sinusitis, foul smell, and anosmia^(11,12).

Clinically, ectopic intranasal teeth appear as hard white mass not surrounded by a nasal mucosa, for which diagnosis is usually straightforward. But in some cases, the tooth may be embedded in the nasal mucosa and surrounded by debris, granulation tissue, and ulcerative materials, for which a differential diagnosis should be formulated⁽¹³⁾.

The diagnosis of ectopic teeth is made on the basis of clinical and radiographic examination.. Radiographically, a radiopaque mass lesion may be seen in or near the nasal cavity on panoramic or other facial x-ray films. CT scans may demonstrate a germinal follicle and investing lamina^(6,7).

The differential diagnosis of intra nasal teeth includes rhinoliths, foreign bodies, bony sequestra, neoplasms, and exostoses⁽¹²⁾.

The treatment of intranasal teeth include surgical extraction. Removal of nasal teeth is generally advocated to relieve the symptoms. When an ectopic tooth is found in the nasal cavity, a minor operation is usually needed in the procedure⁽¹⁴⁾.

The extraction of nasal teeth can be performed under endoscopic guidance, it helps in clear visualization, good illumination and precise dissection to minimize the injury to nearby structures⁽¹⁴⁾.

CONCLUSION

Ectopic teeth erupting in the nasal cavity are a rare occurrence. This may present with varying degree of morbidity. It can be associated with facial pain, nasal discharge, external deformities, recurrent epistaxis, foul-smelling, rhinorrhea, and headaches. Complications of sino nasal teeth include bacterial sinusitis, aspergillosis, and naso-oral fistulas. So as a pedodontist our duty is to identify such cases, their etiology and clinical features and properly manage such cases to avoid the complication of the same in later stage.

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