Supernumerary Tooth in the Nasal Cavity: Case Report

Nazal Kavitede Süpernumere Diş: Olgu Raporu

*Serdar UYSAL, DDS, PhD, *Özden KANSU, DDS, PhD, *Hilmi KANSU, DDS, PhD,
*Hacettepe University Faculty of Dentistry Department of Oral Diagnosis and Radiology

**ABSTRACT**

Ectopic eruption of a tooth into the nasal cavity is rare and mostly diagnosed during clinical or radiographic examination. A 15-year-old male patient was admitted to the Department of Oral Diagnosis and Radiology clinic for dental examination. Dental history revealed a previous trauma to the teeth one month before. Intraoral examination showed the absence of the maxillary left central incisor, and radiographic examination (panoramic and periapical) showed a radiopaque tooth-like structure in the nasal cavity. For the definitive diagnosis computed tomographic scanning was obtained. Extraction of the nasal tooth is the treatment modality when it is diagnosed. Asymptomatic nasal tooth should also be removed or at least followed radiographically. Based on radiographic diagnosis, surgical removal of the nasal tooth was suggested. However, as the patient and his parents rejected extraction, periodic follow-up with clinical and radiographic examination was decided to be applied. Periapical, occlusal and panoramic radiography are fundamental techniques in investigation and management of missing tooth. When required, advanced techniques (like computed tomography) are also helpful.

**KEYWORDS**

Nasal tooth, periapical radiography, panoramic radiography, computed tomography

**ÖZET**


**ANAHTAR KELMELER**

Nazal diş, periapikal radyografi, panoramik radyografi, bilgisayarlı tomografi
INTRODUCTION

Ectopic teeth may present itself in many regions of the maxillofacial skeleton. Teeth may erupt to various locations such as the maxillary sinus, mandibular condyle, coronoid process, orbits, palate, and nasal cavity. Eruption of a tooth into the nasal cavity is a rare occasion and occurs in only 0.1–1% of the population and is mostly diagnosed during routine clinical or radiographical examination. The identification of the condition is important, as it has the potential to cause serious morbidity. In case of a tooth in the nasal cavity, the signs and symptoms vary from nasal congestion, obstruction, discharge, and epistaxis, to mild fever and facial pain, and sometimes it can appear as incidental finding on dental radiographs.

This report presents a rare case of asymptomatic supernumerary tooth erupted into the nasal cavity which was diagnosed incidentally.

CASE REPORT

A 15-year-old male patient (B.T.) was admitted to the Department of Oral Diagnosis and Radiology for dental examination and treatment of absent maxillary left central incisor. The patient’s medical history was unremarkable. Clinical evaluation indicated that the patient was a healthy adolescent with no other physical abnormalities. Dental history revealed a previous trauma to the anterior teeth occurring one month earlier. It was learned that the left maxillary central incisor was extracted by himself due to its excessive mobility. No other history of trauma could be obtained. Initial examination of the mandible, temporomandibular joint, facial bones and zygomaxillary complex were within normal limits. Intraoral examination revealed absence of maxillary left central incisor. There were no evidences of significant edema and tenderness. In the maxillary and mandibular anterior region percussion, palpation sensitivity, and mobility tests were normal. Also, there was no significant periodontal pocketing and electrical pulp tests were positive in the anterior region.

Periapical radiographic examination showed the empty socket of maxillary left central incisor and a radiopacity in the left nasal cavity (Figure 1). Because of this appearance, a panoramic radiograph was taken. The radiograph showed a radiopaque tooth-like structure in the left nasal cavity. Based on the detection of root and pulp canal, a preliminary diagnosis of a nasal tooth was made (Figure 2). An impacted mandibular left second premolar was also noted on the panoramic radiograph. The patient reported no complaint in the nasal cavity. However, for the definitive diagnosis, computed tomographic (CT) scanning was obtained. Coronal and axial CT imaging revealed the following: a tooth-like radiopacity in the left nasal cavity, hypertrophy of the nasal conchae, deviation of the nasal septum to the right and thickening of the maxillary sinus mucosa (Figures 3 and 4). Nasal borders were regular and no adjacent bone destruction was observed.

The clinical and radiographic findings, risks/benefits of surgery, long-term prognosis of the affected tooth and the dental treatment plan were discussed. Suggested treatment involving extraction of the tooth was rejected by the patient and his parents. Asymptomatic nature and lack of complaint was the main reasons. Hence, periodic follow-up with clinical and radiographic examinations was recommended. Also, another treatment plan for impacted premolar was determined for the patient.

DISCUSSION

Ectopic eruption in the dental environment is common, whereas eruption into other sites is rare. The etiology of nasal teeth remains obscure. Many theories have been proposed, including developmental disturbances such as cleft palate, teeth displaced by trauma, cysts, infection, eruption secondary to crowding of the dentition, persistent deciduous teeth, or dense bone and genetic factors. Another hypothesis is that the supernumerary tooth is an inverted mesiodens that grows into the floor of the nasal...
Kirmier et al. reviewed the literature and discussed 25 well-documented cases. Majority of cases consisted of one tooth as in our case. They documented that in 82% of cases, associated symptoms were also present. However, there was no symptom in our case.

In the presented case, there was no missing tooth in the maxilla except left central incisor which was extracted by the patient himself. We considered that intranasal radiopacity was a supernumerary tooth. Although, there was a trauma, regular nasal borders on CT images ruled out the possibility of a displaced tooth. There was no other trauma history in the past, so trauma has not been considered as an etiologic factor in our case.

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When nasal masses are identified, the differential diagnosis should also include nasal foreign bodies, rhinoliths, bony sequestrae, neoplasms, odontomas, calcifying odontogenic cysts and exostoses. The diagnosis of nasal tooth can be determined from clinical and radiographic examinations. Clinically, nasal tooth presents itself as hard white masses, located in the nasal cavity and surrounded by granulation tissue and debris. Radiographic examination may be helpful, but does not always confirm the diagnosis of nasal tooth because they may appear only as a nonspecific
diagnosed, the treatment of nasal tooth is extrac-
tion because of potential morbidity. Asymptom-
atic tooth should be removed or at least followed-
up radiographically. As our patient did not ac-
cept the extraction, we decided to follow-up the 
patient clinically and radiographically.

CONCLUSION
In cases of nasal teeth, the use of conventional 
and advanced radiographic techniques is helpful.

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