



Intranasal Ectopic Tooth Causing Septal Deviation

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The ectopic tooth incidence is increasing gradually. The etiology could not be explained in so many cases. It is very rare for the tooth to be in a place outside the normal location, and disrupt the structure of nasal septum. The diagnosis can be made by physical examination and radiology. In our study, the case of a 51-year-old male patient, with a complaint of stuffy nose for a long time is presented. Septal deviation is diagnosed. Ectopic tooth causing septal deformation is observed in the maxillary crest in computed tomography (CT) scans. Septoplasty is performed. Ectopic tooth is removed while septoplasty. Septal deviation is a well-known common pathology, but ectopic tooth as an etiologic factor for septal deviation is rare.

Keywords: Intranasal tooth, septal deviation, ectopic

Introduction

An ectopic tooth in the nasal cavity is a rare condition. Identifying whether this tooth is excess, temporary, or permanent is important to avoid complications and pain (1).

A tooth in the nasal cavity can arise by a deviation from healthy tooth structure, or it can be there as an excess. In some cases, the deviation of regular temporary or permanent teeth into the nasal cavity can be related to a prior trauma, cyst, or cleft palate (2). Excess tooth form that idiopathically climbed into the nasal cavity is a separate condition. Biological and genetic mechanisms that result in hyperdontia, aberration, and dysform combinations remain largely unexplored. This extra tooth generally has characteristic-specific morphology. The most common form is the conical one (3). Less frequently, it is tubercled or cylindrical and in molar tooth-like form (4).

Regardless of the cause, an intranasal tooth can cause crusting in the nasal mucosa, facial pain, abscess, malodor, headache, recurring nosebleeds, and unilateral nasal obstruction (5, 6). Even though it is not difficult to diagnose an intranasal tooth, given that it has no symptoms and that the clinical picture is varied, it can easily be overlooked. Diagnosis is usually made by coincidence during routine clinical and radiological evaluations (5). In this study, a tooth in the nasal cavity that caused nasal obstruction by disrupting the structure of the nasal septum is presented.

Case Report

A 50-year-old male patient was admitted due to nasal congestion and headache symptoms that were present for a long time. The patient had no other complaints and had no history of trauma or surgical operation. In his clinical examination, a septum deviation caused nasal obstruction in the left nasal cavity was detected. A calcified mass in the maxillary crest was detected in his computed tomography scan. It was observed that this mass was tooth-shaped and ectopically-located and that it was causing septum deviation by deforming the nasal septum structure (Figure 1).

Septoplasty was performed. The pathology in the nasal septum was fixed during this operation. Furthermore, the excess, ectopically-located tooth was excised (Figure 2). No complications were observed after the operation. The patient reported no complaints in his 4-month postoperative follow-ups. This study was conducted after obtaining the patient's consent.

Discussion

Tooth formation in the nasal cavity is a rare condition, and case series in literature are limited. Its prevalence is believed to vary between 0.1% and 1% (7). It is more commonly observed in males

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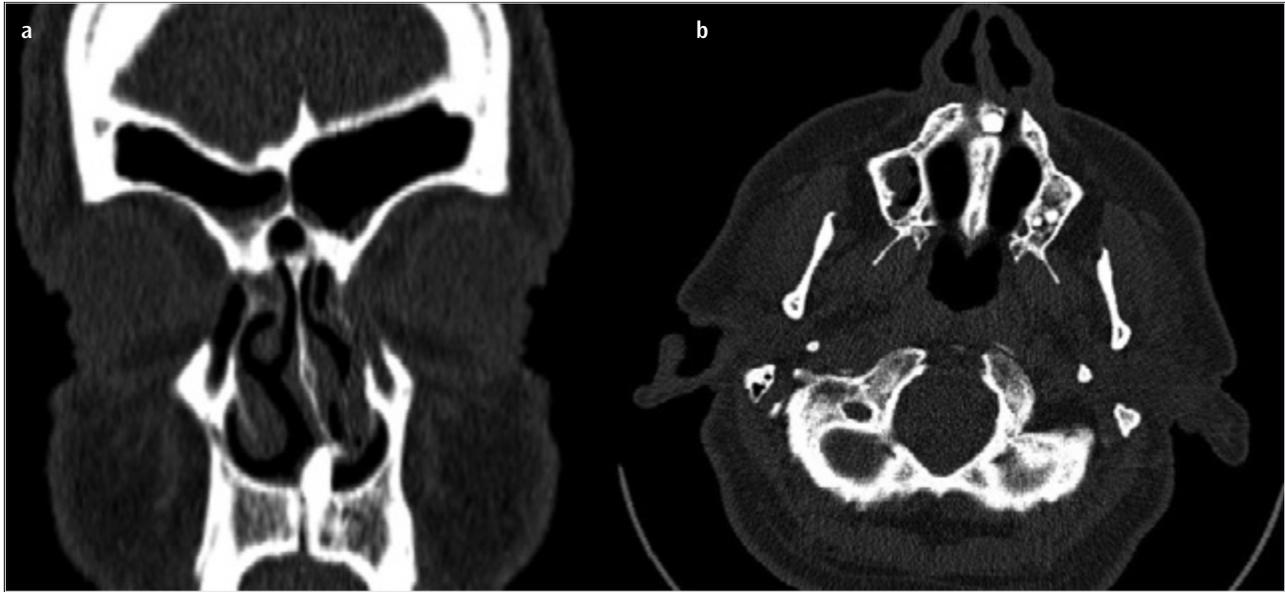


Figure 1. a.b. Image of an intranasal tooth in computed tomography. The relationship between ectopic tooth and septum deviation in coronal section (a) and axial section (b)



Figure 2. The appearance of intranasal ectopic tooth during operation

(3). An intranasal tooth is generally observed unilaterally and as one. Bilateral or unilateral more than one intranasal tooth cases are less frequently observed (8).

The etiology of an ectopic tooth is unknown. There are many theories about this issue: replacement due to trauma or cyst, replacement of developing tooth due to maxillary sinus infection, genetic factors, cleft palate, obstruction in the lower region during teeth development, persistent primary teeth, intense bone tissue, exten-

sion of the root of the long tooth to the nose, and progression of the extra tooth to the floor of the nasal cavity where the incisors are located (8). Given that there was no history of trauma or infection in our patient, the presence of a developmental anomaly can be considered.

If unilateral or bilateral nasal obstruction symptomatically progress, it can include various clinical pictures such as epistaxis, persistent purulent or bloody discharge, nasal or facial pain, headache, chronic localized ulceration, nasal septum deviation, necrotic or granulation tissue in the nasal cavity, rhinolith, paranasal sinusitis, and oronasal fistula (8, 9). Our patient had a nasal septum deviation that caused headache and nasal obstruction.

An intranasal tooth diagnosis is made with clinical examinations and radiological investigations. Clinically, the most common intranasal tooth localization is seen at the floor of the nasal cavity. Foreign objects, rhinolith, benign and malignant tumors, calcified inflammatory changes, tuberculosis, fungal infection, osteoma, exocytosis, odontoma, and cystic lesions must be considered in the differential diagnosis (8). Radiological investigations help differentially diagnose between these possible pathologies. Caldwell radiography, Waters' view, lateral radiography, panoramic radiography, and computed tomography are used in radiology. Computed tomography in particular is important in the differential diagnosis (10). In our patient, the presence of the ectopic tooth was confirmed using computed tomography.

Conclusion

An ectopic tooth is a rare condition that can present with different symptoms depending on the location. Observing an ectopic tooth in the etiology of a frequently observed pathology such as septum deviation is even rarer.

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