

Ectopic Tooth in Maxillofacial Region – Report of three cases

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Abstract

Ectopic tooth is a rare finding in the maxillofacial region. They are similar to impacted tooth, the difference being ectopic tooth erupt at unusual places. They have an abnormal eruption pathway. Here, three cases of ectopic tooth are presented. The cases reported here are ectopic tooth in the left nasal cavity, in the left maxillary sinus and the right ramus of the mandible in an edentulous patient. Two patients were managed under local anesthesia while one had to be managed under general anesthesia

Keywords: Ectopic, Maxillary sinus, Ramus of the mandible.

INTRODUCTION

Eruption of tooth into place other than tooth bearing region is defined as ectopic eruption. Although ectopic eruption of tooth is rare, there are cases in the maxillary sinus, ramus of the mandible, palate, nasal cavity, and orbital floor. In most cases, it is an incidental finding. However, in the cases presented here patient had relevant findings such as pain, infection with a sinus formation, maxillary sinusitis, and pus discharge. There are cases that reported with odontogenic tumors and cysts around the ectopic tooth.^[1] If the patient has unusual orofacial pain, undiagnosed nasal discharge, maxillary sinusitis, pre-auricular fistula, trismus, and lip paresthesia, the patient should be suspected for ectopic tooth. The surgical procedure varies depending on the site of the ectopic tooth all the while protecting the anatomical structures.

CASE 1

Patient reported to clinic with complaints of pain and repeated discharge from nasal cavity. He had an otolaryngologist consultation and suggested probable infection and was advised for CT scan. Scan evidently showed presence of opacity in the nasal cavity resembling a tooth (Figure 1). Patient was referred to oral surgeon for further evaluation. On clinical examination, there was evident pain and discharge from nasal cavity. Moreover, further examination revealed tooth like structure deeply seated within the nasal cavity. OPG was suggested and confirmed the presence of a teeth intranasally. Since the tooth was partially evident, decision was made to approach nasally and was planned under local anesthesia after evaluating with the radiograph and CT scan.

Lignocaine with adrenaline was used for infraorbital nerve block with infiltration around the nasal vestibule. Vestibule was retracted to visualize the tooth. Pediatric periosteal elevator was used to luxate the tooth. During procedure tooth got luxated and got pushed apically and was difficult to visualize. Patient was asked to blow his nose gently on which it was further visible and was removed with artery forceps.

CASE 2

The patient had occasional fever when there was an inflammation in the particular region. An orthopantomogram was advised, which revealed an inverted impacted tooth in the right ramus of the mandible region (Figure 2). There were foci of infection around the tooth as well.

Treatment option was to remove the tooth extra orally under general anesthesia. An incision was placed posterior to the right mandibular ramus (Hinds incision). The thin layer of platysma was identified, incised to identify the parotid gland. Dissection was done posterior to the parotid gland, the gland was retracted anteriorly to visualize the pterygomassetric sling. The pterygomassetric sling was incised along the posterior border to expose the ramus (Figure 3). The tooth was visualized

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and extracted. The bony area around the tooth was curetted. The sinus tract excised and the wound was closed.

CASE 3

A 30-year-old male patient presented with a complaint of dull aching pain in the left maxillary posterior arch with a small swelling on the buccal aspect along the apices of the first and second molar region. The patient also had a recent history of pus discharge from the nasal cavity with a feeling of fullness



Figure 1: CT scan showing the tooth in the nasal cavity



Figure 2: OPG showing the tooth in the ramus of the mandible



Figure 3: Post-ramal approach to identify the tooth

and pressure in the left nasal cavity. A sinus pathology was suspected. An orthopantomogram was advised, which revealed an ectopic tooth inside the maxillary sinus (Figure 4).

The tooth was planned to be extracted from the maxillary sinus under local anesthesia. A semilunar incision was placed from 24 to 27 region. Mucoperiosteal flap was reflected and a bony window was created. The tooth was identified extracted and the sinus was lavaged. The wound was closed in layers.

DISCUSSION

Ectopic tooth in the nasal cavity is a quite rarely reported case. Most of the time is not evident clinically. However, it is important to identify these tooth, which can be supernumerary, deciduous, or permanent, to avoid possible complications of pain and infection.^[2] Epistaxis, paranasal sinusitis, nasal septal deviation, nasal septal abscess, and oral-nasal fistula may occur in nasal eruption of the ectopic tooth.^[3] It is also possible that it acts as a nidus for mineralization in the infected nasal cavity, gradually surrounded by calcified material and chronic infected tissue.^[4] Many a times, intranasal teeth may be asymptomatic and may incidentally be recognized during routine examination.^[5]

Clinically, an intranasal tooth may be completely or incompletely embedded in the nasal mucosa, and when diagnosed its treatment of choice is early extraction because of its potential chances of infection.

Extraction of the ectopic tooth with the aid of endoscopy presents some advantages such as good illumination, clear visualization, and precise dissection.^[6] Furthermore, this technique represents an alternative to more demolishing traditional surgery, allows a reduced post-operative morbidity, and a shorter hospitalization period. The present case report is about the removal of a supernumerary tooth from the nasal cavity approached nasally under local anesthesia.

Several theories have been put forward to explain ectopic locations of third molars, including the aberrant eruption, trauma, and ectopic formation of tooth germs.^[7] A third molar may be displaced a great distance from its habitual location because of an aborted eruption, a displacement due to lesions such as cysts or osseous tumors, or an alteration of the eruption



Figure 4: OPG showing the tooth in the maxillary sinus

due to a lesions such as odontogenic tumors.^[8] The election of the surgical approach is based on anatomical position and preference of surgeons. Many prefer an intraoral approach to avoid visible scars and facial nerve injury. However, in certain situations, intraoral approach may not be appropriate due to the limited surgical field and the poor visualization in inaccessible anatomical regions. In the present case, patient had extraoral sinus drainage from the infected tooth which demanded extraoral approach for sinus excision and tooth removal under general anesthesia. If left out, it could have caused a space infection or osteomyelitis.

Few cases of ectopic teeth in the maxillary sinus have been reported with equal involvement of the right and left maxillary sinuses. In addition, the third molar was found to be the most common ectopic tooth in the maxillary sinus.^[9] Many a times, asymptomatic ectopic tooth in maxillary sinus is left intact if they are asymptomatic. In our case, patient had significant clinical symptoms such as pain, pus, and purulent discharge from nose which demanded surgical removal.

CONCLUSION

Ectopic tooth is usually incidental findings which do not require immediate removal. The ectopic tooth mandates surgical removal if it produces significant clinical symptoms

such as pain, infections, sinuses, nasal discharges, odontogenic infections, and osteomyelitis.

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