

AN UNUSUAL FOREIGN BODY – A METAL TACK IN NASAL CAVITY**¹*Dr. Nagargoje Punam N., ²Dr. Mazgaonkar Firdos S., ³Dr. Waghule Ridhima M., ⁴Dr. Kale Tushar R.**^{1,2}Senior Lecturer in Department of Oral and Maxillofacial Surgery.³MDS in Oral and Maxillofacial Surgery.⁴Resident in Oral and Maxillofacial Surgery.***Corresponding Author: Dr. Nagargoje Punam N.**

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ABSTRACT

Adult with nasal foreign bodies are rare. Whenever the adult patients present with nasal foreign bodies, the underlying psychiatric disorder must be searched for. This report describes an undetected nasal foreign object in a mentally retarded 15 year old girl. A metal tack was discovered in lateral cephalograph lodged in the patient's left nostril. Which was subsequently removed under general anesthesia. We present here a unique case of foreign body inside nasal cavity which was accidentally discovered preoperatively.

KEYWORDS: Foreign body, nasal cavity, metal tack.**INTRODUCTION**

Nasal foreign bodies (NFBs) are commonly encountered in emergency departments. Although more frequently seen in the pediatric setting, they can also affect adults, especially those with mental retardation or psychiatric illness.

The presence of a foreign body in the nose is a relatively uncommon occurrence. Unlike foreign bodies in other parts of the body that often produce noticeable symptoms, foreign bodies in the nose can go unrecognized for significant periods of time. A prolonged period of impaction is even less common, but it is more likely when the foreign body is an inert object.

Foreign bodies can be classified as either inorganic or organic. Inorganic materials are typically plastic or metal. Common examples include beads and small parts from toys. These materials are often asymptomatic and may be discovered incidentally. Organic foreign bodies, including food, rubber, wood, and sponge, tend to be more irritating to the nasal mucosa and thus may produce earlier symptoms. Peas, beans, and nuts are among the more common organic NFBs.^[1]

Nasal foreign bodies can be found in any portion of the nasal cavity, although they are typically discovered around the floor of the nose just below the inferior turbinate. Another common location is immediately anterior to the middle turbinate.^[2] Unilateral foreign bodies affect the right side about twice as often as the left. This may be due to a preference of right-handed individuals to insert objects into their right naris.

CASE REPORT

A fifteen-year-old female was brought by her mother to a department of oral and maxillofacial surgery for a routine dental extraction. Her medical history revealed that she is deaf and mute since birth. Clinical examination revealed that the maxillary anterior teeth were crowded and lower left molar was decayed. Subsequent lateral cephalometric radiograph revealed an unusual radiopaque-appearing object in the area of the patient's left nasal cavity (Fig 1). The patient denied knowledge of the presence of the tack. The mother stated there were no symptoms which would indicate its presence. The patient was referred to an otorhinolaryngologist for evaluation and removal of the foreign nasal object.

His exam revealed that the tack was located in the anterior portion of the right nasal passage. The point of the tack was wedged into the nasoseptal mucosa. The head of the tack was against the inferior turbinate and anchored backward so that the tack was in a fixed position.

The patient underwent outpatient surgery under general anesthesia for removal of the tack. Following suctioning to remove scabs and crust from the tack, grasping forceps were used to push the tack out of position and remove it from the nose. Granulation tissue in the area was cauterized to control bleeding. The patient tolerated the procedure well and was placed on an antibiotic and Neosporin ointment. She was discharged on the same day of the procedure. Patient came for follow up after 7 days, postoperative lateral cephalometric radiograph was

taken for further treatment reveals complete removal of metal tack from patients nose.

DISCUSSION

Insertion of foreign bodies by the little children may be precipitated by boredom, frustration and also mimicking the unhealthy habits of ear and nose picking by adults. Literacy rate seems to be an important factor for avoiding FB insertion or any delay to seek treatment.^[3]

The mentally retarded patient accidentally or deliberately introduce foreign bodies in the nose as they may have childish behaviors of often the children less than five.^[4]

The foreign bodies are more common in right side of nose. The common clue for the diagnosis of nasal foreign bodies is unilateral foul smelling nasal discharge and nasal obstruction.^[5,6]

The size and shape of the foreign bodies can determine the difficulty in its removal, what can cause epistaxis, more rarely septal perforation, rhinosinusitis and bronchoaspiration.^[7]

Maximal visualization of the nasal cavity is obtained by wearing a headlamp. Some authors recommend positioning children younger than age 5 years in a supine lying position and older children in a sitting "sniffing" position to allow optimal visualization. A nasal speculum may also help to view the nasal cavity, although some authors report less patient anxiety and equally good visualization by using one's thumb to pull the nose upward.

The object can be found in any area of the nasal cavity, though objects are most predictably below the inferior turbinate or immediately anterior to the middle turbinate.^[10] Occasionally, evidence of local trauma may exist, with erythema, edema, bleeding, or a combination thereof. After prolonged exposure, an increase in these findings is likely to be observed, as well as the presence of nasal discharge and a foul odor.

In addition to adequate inspection of the nasal cavity, assessing for complications of the nasal foreign body is important.

Nasal foreign bodies are removed by a number of techniques. Positive-pressure expulsion is accomplished by orally applied pressure via a parent's mouth or an Ambu bag or by nasally applied pressure via a catheter or an oxygen source. The object can be washed out with nasally applied saline. Direct mechanical extraction is possible with a variety of tools, including forceps, hooks, or balloon-tipped catheters. Each method carries its own risks and benefits. Serious complications of nasal foreign bodies include posterior dislodgement and aspiration, trauma caused by the object itself or removal attempts, infection, and choanal stenosis. Magnets and button batteries require emergent removal as they carry the risk

of septal perforation or necrosis, which may develop within a relatively short time.

Lastly, looking for additional foreign bodies, whether they are in the nose or other body cavities, is important.

Bleeding is the most common complication reported in patients with nasal foreign bodies (NFBs), although it is characteristically minimal and resolves with simple pressure.

The foreign body itself may cause irritation to the patient; however, morbidity is primarily caused by the resulting inflammation, mucosal damage, and extension into adjacent structures.

Local inflammation from NFBs can result in pressure necrosis. This, in turn, can cause mucosal ulceration and erosion into blood vessels, producing epistaxis. The swelling can cause obstruction to sinus drainage and lead to a secondary sinusitis. Organic foreign bodies tend to swell and are usually more symptomatic than are inorganic foreign bodies.

A delay in the diagnosis of complications of NFBs, such as sinusitis and acute otitis media, can result in prolonged morbidity. This can be avoided by performing a thorough examination and by reexamining the nasal cavity after removal of the NFB.

A review of the literature shows that intra-nasal foreign bodies have been frequently reported especially among children. Among adults, however, they occur very rarely and are caused mostly by injury in an accident, trauma or coexisting mental disorders.^[8] In a large study of 420 cases of foreign bodies in the nasal cavity only one adult case, a homeless man with nasal myiasis was described.^[9] Unusual foreign bodies including buttons have been described very rarely in adults.^[10]

A loose foreign object in the postnasal space can accidentally be aspirated or pushed back in an attempt at removal and may result in acute respiratory obstruction. Foreign bodies in the nose have been implicated as carriers of the causative organisms of diphtheria and other infectious diseases.^[11]



(Fig 1).



(Fig 2).

CONCLUSION

Foreign bodies are common in adult and pediatric ear, nose and throat. The nature of foreign body and site of lodgment may differ in different ages and between different places. They can be of different types from living to non-living and people usually have history of attempted removal before they land in the department of ENT. They can potentially be associated with significant complications if not taken care of immediately and most of times require skillful removal.

This article emphasizes that though nasal foreign bodies are rare in normal adults, still is possible to find one. It is recommended to keep as open mind regarding this, to make an early diagnosis and prevent complications by immediate management.

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