

Case Report

A Rare Nasopharyngeal Foreign Body

Authors

Rakesh Kumar Singh, Saurabh Varshney, Sampan Singh Bist, Nitin Gupta,
Department of Otolaryngology Head and Neck Surgery,
Himalayan Institute of Medical Sciences.

Address For Correspondence

Rakesh Kumar Singh,
Assistant Professor,
Department of Otolaryngology Head and Neck Surgery,
Himalayan Institute of Health Sciences,
Jollygrant, Doiwala,
Dehradun
E-mail: rksent5@gmail.com

Citation

Singh RK, Varshney S, Bist SS, Gupta N. A rare nasopharyngeal foreign body. *Online J Health Allied Scs.* 2008;7(1):10

URL

<http://www.ojhas.org/issue25/2008-1-10.htm>

Submitted Feb 10, 2008; Accepted Mar 21, 2008; Published: Apr 10, 2008

Abstract:

Nasopharynx is an exceptionally rare anatomical location for foreign body impaction. We present a rare case of nasopharyngeal foreign body (NFB) in a 7 years old child. The diagnosis was confirmed by nasal endoscopy. Immediate removal of foreign body (FB) in the nasopharynx was performed under general anesthesia. This rare situation is potentially dangerous, since its dislodgment may cause fatal airway obstruction. Therefore, in all cases with missing foreign bodies in the aerodigestive system, nasopharyngeal impaction should be kept in mind and endoscopic examination of the region should be considered.

Key Words: Foreign body, Nasopharynx

Introduction:

Foreign bodies have been a source of tremendous problem since time immemorial and until now, it produces great difficulties for both patients and medical practitioner in general and otorhinolaryngologist in particular.

It may turn uneventfully or endanger the life of the patient depending upon the type, size and location of the FB. Whatever the location, the most dreadful outcome of the event is seen when an external substance is lodged in the air and food passage. When the victim is a child then most terrifying result is mandatory, particularly if timely intervention cannot be done.[1,2]

As far as the age factor is concerned, no age is exempted. Although the literature regarding FB supports the idea that most of the victims are children under 10 years of age. In this age group, most of the events are self-inflicted, especially in those who do it repeatedly and those who are mentally retarded and they may benefit from psychotherapy.[2] We are presenting a unusual case of NFB in a 7 years old mentally healthy child with a rubber bead impaction in nasopharynx. The rubber bead would have been ingested by the child while he way playing. He has had one episode of vomiting soon after the initial incidence. The local practitioner could not succeed to locate the ingested FB as it was stuck in nasopharynx during emesis. We disclose the FB in nasopharynx by nasal endoscopy that has to be done in every case of missing aerodigestive FB.

Case Report:

A 7-years old male child came to the ENT OPD with complains of bilateral nasal obstruction and purulent nasal discharge since last 12 days. At that time, the boy did not have any kind of difficulty in breathing or swallowing. However, he had one episode of vomiting soon after the ingestion of the rubber bead. He was very ignorant of the ingested foreign body in view of getting no health problem. From third day of the initial event, he began to develop bilateral nasal obstruction and purulent nasal discharge. He consulted a qualified local practitioner who advised for plain X-rays of neck, thorax, abdomen and pelvis. Perhaps, the x-rays did not reveal any foreign body and with the assumption of expulsion of FB in vomitus, the local practitioner prescribed some antibiotic and nasal decongestant to the patient. The patient did not get benefit with these medications and decided to come to us for further consultation.

The patient's general and mental health was normal. Examination of ear, oral cavity, larynx and neck yielded no significant clinical findings. His chest examination was normal. He was a mouth breather and had no other respiratory difficulty. The nasal examination revealed bilat-

eral purulent nasal discharge; hyperemic nasal mucosa and reduced bilateral nasal patency. The posterior rhinoscopy showed postnasal purulent discharge and obliteration of postnasal space. The exact cause of the obliteration could not be identified because of the presence of excess purulent material. Nasal endoscopy with a 0° rigid endoscope revealed a black rubber bead embedded in lymphoid follicle(adenoid) in nasopharynx (Fig. 1). The previous history of foreign body ingestion and the lateral plain radiograph (Fig. 2) of nasopharynx confirmed the diagnosis of foreign body in nasopharynx.

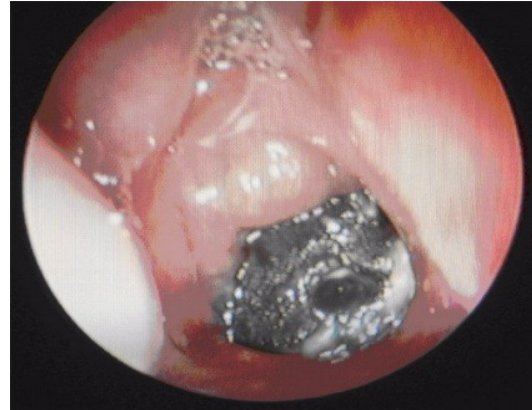


Fig 1: Nasopharyngeal view through a rigid endoscope showing a rubber bead stuck in nasopharynx

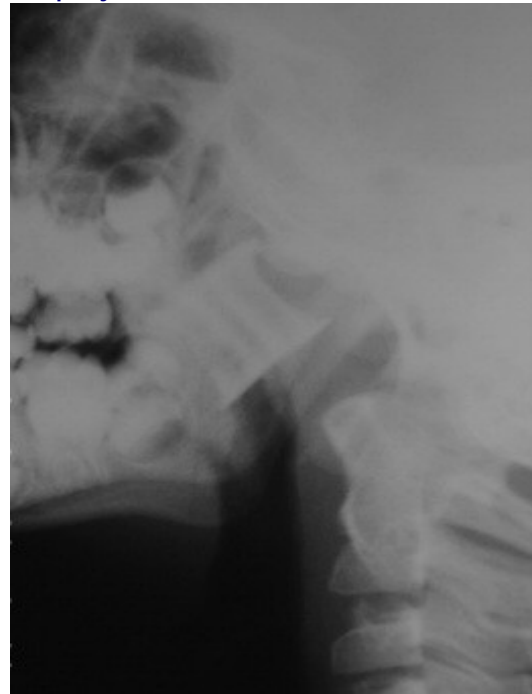


Fig 2: Lateral plain radiograph of neck showing a foreign body in nasopharynx



Fig 3: Photograph showing the rubber bead

The patient was taken for the removal of NFB under general anaesthesia with endotracheal intubation. The rubber bead (Fig 3) was removed through the transoral route under transnasal endoscopic control. Mild bleeding occurred during the procedure that was controlled by temporary pressure packing with ribbon gauze. The patient was discharged from the hospital on the 1st post operative day with relief of all symptoms.

Discussion:

Nasopharynx is an exceptional anatomical location for foreign body impaction.[3] In spite of dealing with nearly 2000 cases of aerodigestive FB, Chevalier Jackson had only two cases of NFB.[4] This rarity could be because of comparatively capacious space in the nasopharynx preventing FB lodgment. The FB may be arrested in the more narrow nasal space before entering the nasopharynx. The strong nasopharyngeal isthmus could prevent the upward movement of FB during ingestion. However, forceful emesis or coughing may eject a pharyngeal or esophageal object into the nasopharynx. The penetrations of a substance during trauma or iatrogenic impaction of the FB during its removal is the other rare causes of NFB.[3,4]

The NFB may remain silent for long or may present the symptoms simulating rhinosinusitis or adenoid hypertrophy. The usual symptoms are bilateral nasal obstruction, purulent rhinorhea, epistaxis or halitosis. The further hypertrophy of the lymphoid follicles due to infection may produce disturbance of eustachian tube function and present as otological symptoms such as earache, otorrhoea and hearing impairment.[5,6]

It is not possible to visualize the NFB through anterior rhinoscopy. However, a posterior rhinoscopic examination may reveal the presence of foreign body in nasopharynx. The mainstay in the diagnosis of a NFB is to visualize the FB through rigid or flexible endoscope. It

can provide an opportunity to understand the pathological changes that occur in response to a foreign substance in nasopharynx. More importantly, it can provide a roadmap for the removal of lodge FB under direct vision.[3,5] Lateral radiographs of the neck will be beneficial in identifying radio-opaque foreign bodies.[6] Computerised tomography (CT) scan or magnetic resonance imagine (MRI) could be the better imaging techniques in identifying a suspected NFB in a more precise manner. However, the cost of the technique, the risk of radiation exposure during CT scan and selective contraindication of MRI may limit their role in selective conditions.

A potentially fatal complication of a foreign body lodged in the nasopharynx is sudden airway obstruction due to descend of the object into the lower respiratory tract during its removal, playing or forceful snuffing.[3,5] Safest and best way to remove the NFB is removal under general anaesthesia by securing the airway via endotracheal intubation during its removal.[3] Large foreign bodies are more challenging to remove. In rare cases, it may need lateral rhinotomy, transpalatal, or midfacial degloving approach for its removal.[6]

Our case was a 7-year boy who was mentally normal. The foreign body was impacted in the nasopharynx during the episode of vomiting immediately following the rubber bead ingestion. The general practitioner did not localize the foreign body because he did not think about the rare location of its impaction in nasopharynx and instead tried to search for it in the lower pharynx, esophagus and lower digestive tract. This case is a revelation for us to explore the nasopharynx with endoscope in each case of missing foreign body.

References:

1. Das SK. Aetiological evaluation of foreign bodies in the ear and nose. *J Laryngol Otol* 1984;98:989-991.
2. Bhatia PL. Otolaryngological foreign bodies: a study in Jos, Nigeria. *Tropical Doctor* 1989;19:62-64.
3. Ozer C, Ozer F, Sener M, Yavuz H. A forgotten gauze pack in the nasopharynx: an unfortunate complication of adenotonsillectomy. *Am J Otolaryngol* 2007;28:191-193.
4. Briggs RD, Pou AM, Friedman NR. An Unusual Catch in the Nasopharynx. *Am J Otolaryngol* 2001;22: 354-357.
5. Oysu C, Yilmaz HB, Sahin AA, Külekcı M. Marble impaction in the nasopharynx following oral ingestion. *Eur Arch Otorhinolaryngol* 2003;260:522-523.
6. Eghtedari F. Long lasting nasopharyngeal foreign body. *Otolaryngol Head Neck Surg* 2003;129:293-294