

Case Report

A Rare Incidental Encounter of a Foreign Body in the Nasopharynx During Adenotonsillectomy: A Case Report from Tanzania

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ABSTRACT

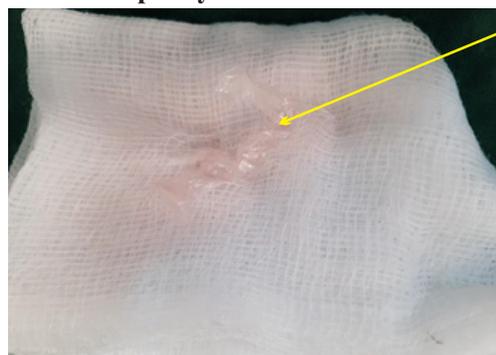
Foreign bodies may become lodged in various parts of the upper aerodigestive tract and establishing the presence of such foreign bodies is expected from health care practitioners. Foreign bodies may be classically organic or inorganic and their insertion into various parts of the aerodigestive tract may be deliberate or accidental. Majority of inhaled foreign bodies are reported in children and may even go unnoticed. There are scarce reported studies of foreign bodies in the nasopharynx. We are reporting an unusual case in which a foreign body in a child's nasopharynx went unnoticed for 9 months and was found incidentally during adenotonsillectomy.

INTRODUCTION

Although rare, foreign bodies when lodged in the nasopharynx, are otorhinolaryngological emergencies as they may descend into distal airways and cause upper airway obstruction (1-4). Aspirated foreign bodies are commonly reported in pediatric patients and account for emergencies (1).

Nasopharyngeal foreign bodies (NFBs) tend to produce minimal signs and symptoms and thus challenging to diagnose (1-3,5). A radiographic evaluation of the nasopharynx thus becomes imperative in all cases of untraceable foreign bodies (6-9). The lodgment sites of aspirated foreign bodies are diverse. Thus, a high index of suspicion is necessary and a meticulous examination of nasopharynx is of importance in every case of untraceable foreign body. Encountering aspirated foreign bodies having been lodged in the nasopharynx is a rare encounter and from the available literatures, this is the first documented case in Tanzania of a foreign body incidentally encountered during elective adenotonsillectomy.

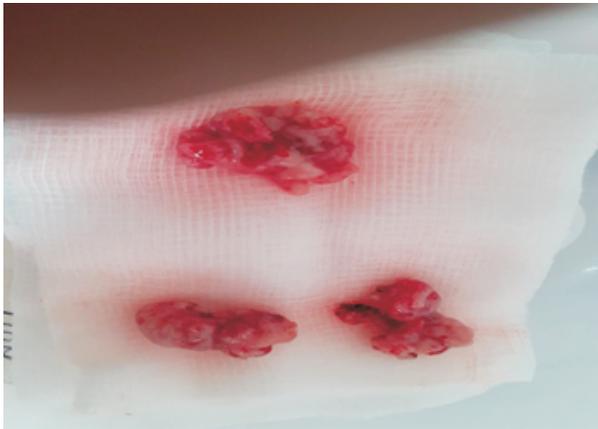
Figure 1: Showing the foreign body (plastic material indicated by the arrow) after its removal from the nasopharynx



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Figure 2: Showing palatine tonsils and adenoid tissue after their removal



Case Presentation

A 5-year-old girl was admitted to undergo an elective adenotonsillectomy (Figure 2 showing palatine tonsils and adenoid tissue) at our hospital due to recurrent adenotonsillitis. She has been experiencing recurrent throat pain and snoring. Upon throat examination, she had grade 3 tonsils according to the Brodsky scale. However, x-ray of the nasopharynx-lateral view showed narrowing of the nasopharyngeal air column, which suggested adenoid hypertrophy. She underwent a routine preoperative assessment in which all laboratory test results were normal and anesthetist review approved the child to undergo the scheduled surgery. During adenotomy, two nasal catheters were introduced to ensure adequate exposure of the nasopharynx. Adenoid tissue was palpated and then curetted using adenoid curette. Further palpation to ensure complete removal of adenoid tissue ended up with a plastic material being removed from the nasopharynx (figure 1). Intraoperatively, nasal endoscopy was done and no any other foreign body was seen. Tonsillectomy was then done to accomplish the scheduled adenotonsillectomy. The child was kept in our ward and observed for 24 hours before discharging her home as per the set hospital protocols post-surgery.

Postoperatively, we asked the mother about the foreign body which was removed intraoperatively

and she reported a history of foul smelling right sided nasal discharge which upon anterior rhinoscopy and x-ray of the nasopharynx revealed no evidence of aspirated foreign body. The symptoms resolved after being given nasal decongestants.

DISCUSSION

Aspirated foreign bodies (AFBs) are somehow challenging to clinicians since they may present with non-specific signs and symptoms and in unwitnessed cases of AFBs, the diagnosis may be delayed or missed thus increasing morbidity and mortality to involved children (1,2,6-16). Despite the voluminous literature addressing pediatric foreign body aspiration, few studies have examined the clinical characteristics of cases involving delayed presentation (12,14). Available literatures, have reported the nasopharynx to be an uncommon site for foreign bodies and the reported cases include small objects such as a ring, tooth, leech and even a fish bone (2-5,13,17-19).

Shape and chemical nature of the FB also play a role in its migration. Irregularly shaped and sharp pointed objects are less likely to migrate since they easily stick to the mucosa. Inorganic FBs are usually inert and evoke less inflammatory response even if they migrate. Organic FBs can cause a severe inflammatory response and with fluid absorption, they can increase in size and may cause airway obstruction (1,20). Children younger than 36 months have a normal developmental curiosity and independence associated with reduced parental supervision. Altogether, these factors place them at an increased risk of foreign body aspirations; this age group has been shown to account for approximately 75% of reported cases (14,21).

The clinical presentation of aspirated nasopharyngeal foreign bodies may mimic other common pediatric conditions such as adenoid hypertrophy (4,5). The most common patient complaints include bilateral purulent rhinorrhea and nasal obstruction (2,4,5,17,22). Epistaxis, recurrent rhinosinusitis, halitosis, and otitis media with or without effusion may also occur in cases of prolonged nasopharyngeal lodgment (2-5,12,17).

A history suggestive of foreign body aspiration has been reported to be less likely in longstanding cases with its likelihood being 53% to 77% (14,23). Nasopharyngeal foreign body lodgment can occur in many scenarios, such as dislocation of a foreign body from the nasal cavity during extraction attempts, upward migration from the pharynx or esophagus after forceful pressure due to vomiting or coughing, traumatic penetration, or iatrogenic causes (5,17).

Generally, it's important to palpate thoroughly the nasopharynx during adenotomy or adenotonsillectomy since a foreign body may lodge and contribute to snoring apart from adenoids which is commonly sought by Otorhinolaryngologists.

CONCLUSIONS

Foreign bodies isolated to the nasopharynx are uncommon but it should be considered as a potential diagnosis in patients presenting with persistent symptoms or new complaints with a positive history of foreign body aspiration. We describe the only reported case of a "plastic material" within the nasopharynx. The clinical presentation of foreign bodies in the nasopharynx can vary among individuals thus a strong index of suspicion, coupled with a thorough head and neck examination, will result in a proper diagnosis. Most nasopharyngeal foreign bodies may be safely removed transorally after oral endotracheal intubation.

Consent: Informed consent was obtained from the mother

Ethical approval: It was done in accordance with the Declaration of Helsinki

Conflicts of interests: We declare to have no competing interests

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