International Journal of Contemporary Pediatrics
Sagar P et al. Int J Contemp Pediatr. 2024 Dec;11(12):1834-1836
http://www.ijpediatrics.com
pISSN 2349-3283 | eISSN 2349-3291

DOI: https://dx.doi.org/10.18203/2349-3291.ijcp20243489

Case Report

Bolted in the nasopharynx: case report of an unusual foreign body in a child

Poonam Sagar, Viny Bhardwaj*, Sangay Choden Lepcha, Arun E. J.

Department of Otorhinolaryngology and Head and Neck Surgery, All India Institute of Medical Sciences, New Delhi, India

Received: 18 October 2024
Revised: 12 November 2024
Accepted: 16 November 2024

***Correspondence:**
Dr. Viny Bhardwaj,
E-mail: bhardwajviny@gmail.com

ABSTRACT

Foreign bodies of the aerodigestive tract can land otolaryngologists in a tough spot. The complexity of the situation increases even more in paediatric patients where a satisfactory examination is often difficult to achieve. Of all the location in upper airway, nasopharynx is deemed as an uncommon spot for lodgement of foreign bodies, especially when ingestion is the route of entry of foreign substance. The role of imaging and nasopharyngoscopy is often undermined. We present the case of a 2-year-old child who presented with an alleged history of ingestion of a foreign body. Clinical examination showed mucoid discharge in bilateral nasal cavities. The examination performed was limited since the child was irritable. Based on the suspicious history given by the child's guardian, a plain radiograph was ordered. On radiological evaluation, a radio-opaque object was seen lying at the nasopharynx. A controlled setting with secured airway was chosen as the plan and the child was taken up in emergency for foreign body removal under general anaesthesia. The retrieved object was a metallic nutbolt which presumably got lodged in the nasopharynx by digital manipulation done by the guardian or during a bout of vomiting. Ingested foreign bodies being found in the nasopharyngeal is a rare occurrence altogether. However, whenever feasible, a nasopharyngoscopy should be given due consideration. Radiology is an excellent supplemental tool in cases where a thorough examination is not possible.

Keywords: Foreign body, Pediatrics, Nasopharynx, Otorhinolaryngology, Upper airway foreign body, Emergency, Metallic foreign body, Airway emergency

INTRODUCTION

Foreign bodies of the aerodigestive tract have been cited as a common yet challenging situation for an otorhinolaryngologist. All age groups are affected; however, the preponderance is more amongst the paediatric population.[1] The diagnosis may get delayed if the event goes unnoticed by the care-takers. Ingested foreign bodies tend to lodge at the cricoesophageal sphincter or may collapse into the tracheobronchial system causing life threatening complications.[2] Nasopharynx is deemed as an uncommon location for impaction of ingested foreign bodies. We present a case of a 2-year-old child who ingested a metallic nut-bolt which was removed from the nasopharynx under general anaesthesia.

CASE REPORT

A 2-year-old child was brought to the paediatric casualty at our tertiary care hospital with an alleged history of ingestion of a metallic nut bolt while playing which was witnessed by the child's mother. The mother tried to retrieve the object by digital manipulation, however, the attempt was unsuccessful. The child had one episode of vomiting following the incident. There was no history of

epistaxis, nasal discharge, stridor, respiratory distress, cyanosis, drooling of saliva, dysphagia. On examination, the child was alert and active, vitally stable on room air. Anterior rhinoscopy showed minimal mucoid discharge in bilateral nasal cavities. Oral cavity examination was within normal limits. A plain radiograph of the nasopharynx, soft tissue neck, chest and abdomen was acquired in anteroposterior and lateral view in view of suspicious history. Radiograph revealed the presence of a radio-opaque foreign body in the nasopharynx (Figure 1).

Figure 1: X-ray of the nasopharynx showing radio-opaque foreign body in nasopharynx.

Figure 2: Foreign body after removal.

Figure 3: Foreign body viewed laterally.

The child was admitted and after obtaining informed written consent, he was taken up for foreign body removal under general anaesthesia. The airway was secured with cuffed endotracheal tube, throat packing was done to prevent accidental intraoperative fall of object into the cricopharynx or esophagus. Foreign body was visualized with paediatric fibreoptic nasolaryngoscope and was noted to be impacted at the nasopharynx-oropharynx junction. The patient was placed in rose position. Oral cavity was exposed using Boyle-Davis mouth gag. The foreign body was digitally palpated in the oropharynx. Soft palate was retracted using infant feeding tube and removed gently using curved artery forceps (Figure 2, 3). The post operative period was uneventful and the patient was discharged on first post operative day.

DISCUSSION

Nasopharynx extends from the skull base to soft palate and is a host to several pathologies, foreign bodies though, constitute only a minority at this location. In Chevalier Jackson's account of 2000 foreign bodies of the aerodigestive tract, only 2 were reported in the nasopharynx.[3] Ingested foreign object presenting as a nasopharyngeal body is not an unbeknown phenomenon, however, the incidence is rare. Literature shows presence of foreign bodies like coin, screw, gold ring, pins, leech in the nasopharynx.[4] The mechanism of impaction of swallowed objects up into the nasopharynx remains unclear. An account of literature proposes that it may occur following a bout of vomiting, violent coughing, or digital manipulation.[5] In our case, the supposed mechanism seems to be either vomiting or digital manipulation by the caretaker in an attempt to retrieve the object. The most dreaded complication associated with such a situation is sudden dislodgement of the foreign

object into the airway causing mortality.[6] It is more likely to happen in an irritable and uncooperative patient, therefore, paediatric patients should be examined in a gentle manner. Any intervention should be performed in a controlled setup with endotracheal intubation. As obvious from our case, the foreign bodies may or may not produce noticeable symptoms and signs. Patients with long standing foreign bodies may present with purulent nasal discharge, halitosis, epistaxis, otitis media.[7] Nevertheless, the foreign bodies may be missed on a clinical examination, hence, a radiology inclusive of nasopharynx is crucial in identifying any radio-opaque foreign object.[8]

If a swallowed foreign body is not located anywhere, a suspicion of nasopharyngeal impaction should be kept in mind.[9] In present case, history was not suggestive of foreign body in airway or oesophagus, on the contrary history of vomiting and digital manipulation by mother led to suspicion of upward migration into the nasopharynx. It warrants a thorough head and neck examination, preferably comprising of nasal endoscopy and nasopharyngoscopy.

CONCLUSION

In paediatric patients presenting with alleged history of ingestion of foreign body, a fair weightage should be given to examination of nasal cavity and nasopharynx. If clinical examination fails to yield the location, it should be supplemented with radiology. However, the role of nasal endoscopy and nasopharyngoscopy in unidentified ingested foreign objects or radio-lucent foreign bodies cannot be over-emphasized.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Mcguirt WF, Holmes KD, Feehs R, Browne JD. Tracheobronchial foreign bodies. Laryngoscope. 1988;98(6):615-8.
2. Kashyap SK. Foreign body (coin) in the nasopharynx of a child and its management. Global J Otolaryngol. 2016;1(5):555-79.
3. Jackson C, Jackson CL. Diseases of the air and food passages of foreign body origin. The Laryngoscope, 1936;46:814-4.
4. Kumar J, Gupta A, Sunkum. Nasopharyngeal foreign body in a young child. Ind J Otolaryngol and Head & Neck Surg. 2011;63(3):285–6.
5. Singh RK, Varshney S, Bist SS, Gupta N. A rare nasopharyngeal foreign body. Online J Health Allied Scs. 2008;7(1):10.
6. Ezzat A. Ingested marble impacted in unusual site (nasopharynx). Global J Otolaryngol. 2016;2(1):79.
7. Briggs RD, Pou AM, Friedman NR. An unusual catch in the nasopharynx. Am J Otolaryngol. 2001;22(5):354–7.
8. Parker AJ, Bingham BJ, Osborne JE. The swallowed foreign body: is it in the nasopharynx? Postgrad Med J. 1988;64(749):201–3.
9. Kumar S, Singh DB, Singh AB. An unusual nasopharyngeal foreign body with unusual presentation as nasal regurgitation and change in voice. Case Reports. 2013;1:5.

Cite this article as: Sagar P, Bhardwaj V, Lepcha SC, Arun EJ. Bolted in the nasopharynx: case report of an unusual foreign body in a child. Int J Contemp Pediatr 2024;11:1834-6.