

# FOREIGN BODY IN THE NASOPHARYNX; MASQUERADING AS PHARYNGOTONSILLITIS

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## ABSTRACT

Foreign body (FB) in the aerodigestive tracts has been commonly reported but findings of impacted foreign bodies in the nasopharynx following inhalation/ingestion are very rare. Most of the FB gets lodged as a result of forceful vomiting, coughing, and digital manoeuvres for removal of FB in the oropharynx. Several objects have been identified lodged in the nasopharynx. No age group is spared although most victims are children under 10 years of age.

Foreign bodies in the nasopharynx can be uneventful or potentially dangerous depending on type, size and location as it may cause sudden airway obstruction, or local pressure necrosis of alimentary or respiratory tract or both.

Presentation in children is usually with a history of swallowed FB which may not be witnessed in children, choking, cough, bluish discoloration, breathlessness, drooling of saliva, halitosis, rhinorrhoea, snoring, stridor, dysphagia, vomiting and dysphonia.

A foreign body in the nasopharynx is a challenge to patient, parents, the physician and the ENT surgeon, as it may be miss-diagnosed, in the index case, as Pharyngotonsillitis.

The index patient, a 14 month child, was presented with a two days history of fever, drooling of saliva, mouth breathing, and digital manipulation. Lateral imaging of the post nasal space following initial treatment with antibiotics, aided the diagnosis of a periwinkle shell in the nasopharynx that was removed during a nasopharyngoscopy under general anaesthesia without complication and subsequently discharged home.

This emphasizes a high index of suspicion for FB in the nasopharynx in children with history of missing foreign body, digital manipulation, drooling of saliva and mouth breathing. Lateral X-ray of the postnasal space, neck, chest and abdomen should be the minimum investigation required.

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## INTRODUCTION

**F**oreign body (FB) in the aerodigestive tracts have been commonly reported in literatures but findings of impacted foreign bodies in the nasopharynx following inhalation/ingestion are very rare.<sup>1,2,3</sup>

This is because the anatomical structure of the nasopharynx being spacious and having a sphincter (nasopharyngeal isthmus) does not normally allow regurgitation of FB from the Oropharynx and prevents the lodgment in the nasopharynx.<sup>1</sup>

Nasal cavity foreign bodies rarely impacts into the nasopharynx as the nasal cavity is narrower than the

nasopharynx, and as such most of the FB gets lodged as a result of forceful vomiting, coughing, and digital manoeuvres for removal of FB in the oropharynx.<sup>1,4</sup> Several objects has been identified lodged in the nasopharynx and include but not limited to rubber bead,<sup>5</sup> hooked iron rod,<sup>6</sup> coin,<sup>4</sup> hair clip,<sup>3</sup> and metal nut.<sup>2</sup>

No age group is spared although literature supports the idea that most victims are children under 10 years of age.<sup>5,4</sup>

Foreign bodies in the nasopharynx can be uneventful<sup>5</sup> or potentially dangerous depending on type, size and location as it may descend into the airway and cause sudden airway obstruction,<sup>2,5</sup> or local pressure necrosis of alimentary or respiratory tract or both.<sup>4,6,7,8</sup>

Presentation in children are usually with a history of swallowing FB but could be very unreliable in younger children especially when event is not witnessed.<sup>4</sup>

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Others could be history of choking, cough, bluish discoloration, breathlessness, drooling of saliva, halitosis, rhinorrhoea, snoring, stridor, dysphagia, vomiting and dysphonia.<sup>2,5</sup>

Foreign bodies in the nasopharynx is a challenge to patient, parents, the physician and the ENT surgeon, as it may be miss-diagnosed as missing FB, adenoid hypertrophy, epiglottitis and pharyngotonsillitis. So a high index of suspicion is needed.

Diagnosis could be aided by Rhinoscopy (anterior and posterior), flexible endoscopy, Laryngoscopy, nasopharyngoscopy and imaging. Lateral X-ray of the neck, chest and abdomen for radio-opaque materials and CT/MRI for radiolucent objects.<sup>9,10</sup>

We present a case of impacted Periwinkle shell in the nasopharynx in a 14 month female child in Calabar in an unusual presentation detected radiologically.

#### CASE REPORT

A 14 month female child weighing 10kg presented to the Children Emergency Unit of the University of Calabar Teaching Hospital with a two days history of Fever, Drooling of saliva and mouth breathing. Also said to have been refusing solid feeds and vomited occasionally with liquid feeds. No history of cough or choking on feeds. On examination temperature was 38°C with a respiratory rate of 45c/m and pulse rate of 120b/m. Ear Nose Throat (ENT) examination revealed bilateral enlarged and hyperaemic tonsils with no exudates. Other systemic examinations were normal. A diagnosis of Pharyngotonsillitis was made and child was commenced on crystalline penicillin intravenously while awaiting results of FBC and MP.

A review a day later by the senior resident, noted in addition to above findings, noisy respiration with occasional stridor and the temperature, apart from admitting fever, had remained normal. Lateral X ray of the postnasal space, neck, chest and abdomen was requested and the ENT surgical team invited to see the child.

The mother revealed to the Surgeons, on further probing, a history of the child swallowing accidentally a periwinkle shell, and digital manipulation to remove the shell that failed. Hence the parents assumed it had been swallowed. Also a prior history of frequent rhinorrhoea, snoring and sleep apnoea was elicited.

Patient was discharged on the third day of admission on tab Erythromycin and an NSAID, having remained stable and fever subsided to be reviewed in ENT clinic with X-Ray films.

Mother presented 6 days later with the radiologic film that showed a well defined calcific foreign body in the nasopharynx abutting on the soft palate. Patient was immediately booked for emergency nasopharyngoscopy in the theatre. Consent was duly signed and pre anaesthetist review was satisfactory.

Nasopharyngoscopy was done under general anaesthesia with a secured air way. The periwinkle shell was seen in the nasopharynx and subsequently removed.

The post operative period was uneventful and patient was discharged home thereafter.



Fig 1; Index patient drooling saliva



Fig 2; Plain radiograph of post nasal space, neck, chest and abdomen



Fig 3; Picture of the extracted foreign body, Periwinkle shell.

#### DISCUSSION.

A case of foreign body in the aerodigestive tract is a common occurrence but impaction of FB in the nasopharynx is rare. The accidental swallowing of a periwinkle shell by this child was shocking and could explain the secrecy not to reveal the history initially though, to the parents, was based on the assumption that, it had been swallowed following digital manipulation in an attempt to remove it. This brings to attention, that digital manipulation of a swallowed FB could push it into the nasopharynx leading to the diagnosis of a missing foreign body.

Most of the patient of this age group, especially when the event was not witnessed, poses both diagnostic and therapeutic challenge as most could remain asymptomatic for a long period or present with minimal symptoms of blocked nostrils and nasal discharge and inflamed pharynx with fever hence treated as Pharyngotonsillitis as our index case. Some could present with potentially fatal complications of acute air way obstruction. These will be made worse when the object is radiolucent and small in size in a setting where MRI and CT scan are unavailable or unaffordable.

High index of suspicion is needed when seeing a child with a history of swallowed FB with an attempted digital manipulation, a history of choking, vomiting, coughing and sneezing while retaining any substance in the mouth of a child in addition to any of breathlessness, drooling of saliva, fever, bluish discoloration of mucous membrane, halitosis, rhinorrhoea, snoring, stridor, dysphagia, and dysphonia.<sup>2,5</sup> Plain radiograph of the postnasal space, neck, chest and abdomen could save a physician from an embarrassment if an inhaled/ingested radiopaque object is missing.

#### CONCLUSION.

Foreign bodies in the nasopharynx though rare have been reported and several bizarre objects in different circumstances have been found. Digital manipulations by parents/ care givers have contributed greatly to lodgment into the nasopharynx of children and should be avoided. Plain radiograph of the postnasal space, neck, chest and abdomen should be the minimum investigation in a child with a history of or suspicion of foreign body in the aerodigestive tract.

## REFERENCES

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1. Sanjeev Gupta, Surya Kanta Pradhan. Unexpected nasopharyngeal foreign body. *Appolo hospital medicine*. [www.elsevier.com/locate/apme](http://www.elsevier.com/locate/apme) assessed 4/11/14.
2. Jagdish kumar Athmaran Gupta sunkum. Nasopharyngeal foreign body in a young child. *Indian J otolaryngol Head neck Surg*. July 2011;63(3):285-286
3. Suni garg Shakuntala Naglot I.K Sahni. Nasopharyngeal foreign bodies: need for awareness to avoid digital manipulation in an oral foreign body. *International Journal of Pediatric Otorhinolaryngology Extra*. Sept 2014, 9(3):112-113
4. Parker AJ, Bingham BJ, Osborne JE. The swallowed foreign body; is it in the nasopharynx? *Postgraduate medical journal* 1998;64:201-203. Downloaded from <http://pmj.bmj.com> assessed 4/11/14
5. Rakish Kumar singh, Saurabh Varshney, Sampan Singh Bist, Nitin Gupta. A rare nasopharyngeal foreign body. *Online J health Allied Scs*. 2008;7(1):10
6. Evelyn S Diom, Raymond Diouf, Hadji Malik Diop. Unusual nasopharyngeal foreign body: a hooked iron rod. *Ear Nose Throat J*. 2012 July;91(7):E13-E14
7. Das SK. Aetiological evaluation of foreign bodies in the ear and nose. *J Laryngol Otol* 1984;98:989-991.
8. Bhatia PL. Otolaryngological foreign bodies: a study in Jos, Nigeria. *Tropical Doctor* 1989;19:62-64.
9. Ozer C, Ozer F, Sener M, Yavuz H. A forgotten gauze pack in the nasopharynx: an unfortunate complication of adenotonsilectomy. *Am J Otolaryngol* 2007;28:191-193.
10. Briggs RD, Pou AM, Friedman NR. An unusual catch in the nasopharynx. *Am J Otolaryngol* 2001;22:354-357.