

Late Clinical Manifestations of Foreign Body Nose in Children

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ABSTRACT

Aim: To study the late clinical manifestations of foreign body nose in children

Study design: Descriptive.

Place and duration: Multan Medical & Dental college Ibae sina Hospital, Multan, from Jan 2013 to Feb 2014.

Methods: 200 cases of foreign body nose were included in the study. Their age group were up to 12 years. Personal data and clinical features, investigations, management details and complications were recorded on a predesigned proforma. In younger non cooperative cases foreign bodies were removed under general anesthesia. While cooperative patients were managed without anesthesia by using suction, use of forceps and foreign body hook.

Results: In our case series the most common pediatrics age group involved 5-8 years (40%) as shown in table (1). Rest of the age group have equal distribution i-e(30%). Gender has no specific predilection for nasal foreign body. Of the patients 30% presented with offensive nasal discharge, 25% with epistaxis, 10% with rhinosinusitis, 5% with rhinolith, asymptomatic were 5%.

Conclusions: Foreign bodies in younger children are associated with many complications and poor outcome. Through continuous medical education program (C.M.E) General practitioner should be directed to refer all cases to otolaryngologist. More over the problem is common in children indicating poor parenting and social factors as contributory factor.

Keywords: foreign body nose in children, Late clinical manifestations.

INTRODUCTION

Nature determined that we possess seven orifices. The otolaryngologist deals with five. Children are naturally curious about their surroundings and about these orifices. They are inclined to play toys, foodstuff and household articles in the ear, nose the oral cavity. Sometime the culprit is the sibling or a play ground or nursery chum. Foreign bodies lodged with in the ear, nose, larynx, trachea or pharynx or esophagus may present as a minor irritation or a life threatening problem. Nasal foreign bodies are more common between the ages of two and five¹⁷. They may be inert, hydrophilic or corrosive. Soft subjects such as sponge fragments or tissue paper are the commonest to be found in the nose; in contrast to hard objects inserted to the ears². A nasal foreign body may remain in situ for weeks and only present with unilateral discharge, often with pronounced vestibulitis. The use of nebulized adrenaline provides excellent nasal decongestion¹⁹ with increased availability of smaller 2.7mm endoscopes, can greatly facilitate removal of foreign bodies. In general, clinician has to make a clinical judgment as to what is going to be the best method for removal of foreign

body¹⁷ bearing in mind child is unlikely to tolerate repeated manipulation and the doctor will only have one attempt at using a method that is going to cause any pain whatsoever. Magnets may be of use¹² and nasal washing has been proposed as method of removing foreign bodies, but is not widely used¹⁵. Superglue can also be effective¹⁸. The use of oral positive pressure techniques has now been shown to be effective way removing anterior nasal foreign bodies An oral Ambubag can be used¹² (three patients ,100% success) but parents kiss, where carer blows in to the open mouth of the child whilst occluding the contra lateral nostril, is probably less traumatic to the child Reported success rate vary from 79-100%^{8,9}. The use of forgarty embolectomy balloon catheter is another excellent way to easily remove foreign bodies from the nasal cavities and one series of 25 patients successfully removed foreign bodies (92%) without the need for general anaesthetic.¹⁰ The possibility of inhalation in to the trachea bronchial tree needs to be borne in mind when managing a child with a nasal foreign body¹¹.

MATERIAL AND METHODS

This descriptive study was conducted in E.N.T department of Multan Medical & Dental College IBNAE-SINA Hospital Multan over a period of one year from January, 2013 to February 2014. Two hundred cases of foreign bodies in nose were included up to 12 years of age. Personal data,

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Clinical features, investigations, surgical management details and complications were recorded on predesigned proforma. Most children were presented in emergency or in outpatient department along with their parents with complaints of foreign body in nose in same day, after 2-3 days, some older than 2-3 weeks. The various methods used for removal of foreign bodies were direct visualization and removal with forceps, foreign body hook and use of suction. Uncooperative children or failure of foreign body removal due to deep impaction or had previous unsuccessful attempts were prepared for removal under general anesthesia.

Results. In our case series the most common pediatrics age group involved 5-8 years (40%) as shown in the table (1). Rest of the age group have equal distribution i-e (30%). Gender has no specific predilection for nasal foreign body. Of the patients 30% presented with offensive nasal discharge, 25% with epistaxis, 10% with rhinosinusitis, 5% with rhinolith, asymptomatic patients were 5%. Septal perforation was not found in any case. No deaths or prolonged morbidity were recorded during study period

Table 1. Age distribution

| Age group | n | %age |
|------------|----|------|
| 1-4 years | 60 | 30 |
| 5-8 years | 80 | 40 |
| 8-12 years | 60 | 30 |

Table 2: Gender distribution (n=200)

| Male | Female |
|------|--------|
| 100 | 100 |

Table 3 Late clinical manifestation of foreign body nose

| Clinical features | n | %age |
|------------------------------|-----|------|
| Asymptomatic | 10 | 5 |
| Nasal obstruction unilateral | 50 | 25 |
| Foul smelling discharge | 60 | 30 |
| Epistaxis | 50 | 25 |
| Rhinosinusitis | 20 | 10 |
| Rhinolith | 10 | 5 |
| Septal perforation | Nil | Ni |

DISCUSSION

Foreign bodies may enter the nose by several different means¹. The anterior nares², the posterior nares, during vomiting, coughing, regurgitation or in patients with palatal insufficiency-when the foreign body will consist of stomach, esophageal or mouth contents, and occasionally a round worm (ascaris)³ penetrating wounds and nasal surgery⁴. A palatal perforation as in cleft palate, following a gumma of hard palate or surgery of the palate for malignant disease⁵. Sequestration of bone in situ after trauma

(which may be operative), or syphilis⁶. calcification in situ of inspissated or around foreign body material can lead to the formation of rhinolith. Some foreign bodies are inert may remain in the nose for years without mucosal changes. Many however lead to inflammation and infection of the mucous membrane which, in turn, lead to fetid mucopurulent discharge and epistaxis. These symptoms are normally unilateral, except with animate infestations. Ultimately granulation tissue is formed, and there may be ulceration of mucosa, and occasionally necrosis of the bone and cartilage. Button batteries may result in destruction of nasal septum (Fosarelli etal 2007).Maggots and screw worms attack both nasal cavities and may give rise to severe inflammatory reaction. If untreated they may attack nasal bone and cartilage and also the sinuses, orbit, adjoining skin, meningies and brain (Gupta and Nema,2006). In our study most common age group was 5-8 years of age. Any gender predilection for nasal foreign body has not been reported in our study. The clinical manifestation of nasal foreign body may be related to the length of time. In our study 30% of patients were reported to have foul smelling nasal discharge .25% of children had epistaxis, unilateral nasal obstruction was reported in 25% of children.5% of children were asymptomatic. Rhinosinusitis was found in 10% of patients.5% of the children were succumbed to rhinolith. Septal perforation was not reported in any case. Late presentation of nasal foreign body was related to length of time, it is lodged in the nose, unskilled attempts at removal and its size and shap.^{7, 15.}The commonest presentation were epistaxis, ulceration of nasal mucosa and septal abscess^{6,10}.In our study the most common presentation is foul smelling discharge30% followed by epistaxis 25%.septal perforation is uncommon ,as observed in our study. We had no case of foreign body aspiration; however, this can result from incorrect technique, inexperience, inadvertent inhalation instead of exhalation when using positive pressure method.

RECOMMENDATIONS

A global campaign focusing on consumer legislation to monitor the size of small objects, toys and house hold goods would greatly reduce mortality from foreign bodies in children.

Increased parents awareness of dangers of small objects which children can swallow or inhale should also help reduce mortality.

Reorganization of otolaryngology services and restructuring of training in ORL needs to take account of the need for centralized and skilled care for the removal of inhaled foreign bodies in children.

CONCLUSIONS

Foreign body nose in pediatrics patients are commonly encountered in emergency department. In general, nasal foreign bodies can easily be removed by emergency department physician. However the goal of management should be to minimize complications which often occur from repeated attempts of removal. In many situations direct visualization without anesthesia will allow for successful removal of foreign body, but in cases shown to have less chances of successful removal and high risk of complication, removal of foreign body under general anesthesia should be first line of treatment.

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