



PAEDIATRIC NASAL FOREIGN BODIES IN GMC RAJOURI : OUR EXPERIENCE

Dr. Pooja Gadgotra Senior Resident, Department of ENT, Government Medical College, Rajouri, J&K.
Dr. Mukhtar Ahmad Khan* Assistant Professor, Department of ENT, Government Medical College, Rajouri, J&K. *Corresponding Author
Dr. Vijay Gupta Professor, Department of ENT, Government Medical College, Rajouri, J&K

ABSTRACT

BACKGROUND: Nasal foreign bodies are commonly encountered in ENT department both in OPD and Emergency. Children are more vulnerable to insert than adults. It can be a source of serious morbidity with rarely mortality if not treated timely.

AIMS AND OBJECTIVE: To determine the common types, age of presentation, sex predilection, dominant side, complications and mode of removal of such foreign bodies among paediatric patients seen in our department.

MATERIAL AND METHODS: This study was conducted on 50 paediatric patients in ENT department of GMC Rajouri over a period of 1 year from July 2019-June 2020.

RESULTS: A total of 50 patients treated for foreign bodies in the nose were reviewed. They were 26 males and 24 females with male female ratio of 1.08:1. Most nasal foreign bodies were found in children of less than 10 years with most common age group is 4-5 years i.e. in 14 (28%) patients. Right side of nasal cavity is predominant in 39 (78%). Seeds in 17 (34%) patients were the commonest foreign body followed by beads in 11 (22%). 98% of all foreign bodies are non living. 28 patients (56%) presented within 24 hours of foreign body insertion in the nasal cavity and were removed by Eustachian tube catheter in 44 (88%) and with alligator forceps in 6 (12%). Only 2 (4%) patients need anesthesia. Nose bleeding in 40 (80%) patients was the commonest complication associated with nasal foreign body removal in our study.

KEYWORDS : nasal cavity, foreign bodies, complications, review.

INTRODUCTION

The nose is divided by nasal septum into two nasal cavities which is further sub-divided into three passages by the nasal turbinates. Nasal foreign bodies are commonly encountered in paediatric population or might be seen in adults with psychiatric illness or with mental retardation. Nasal foreign bodies tend to be located on the floor of the nasal passage just below the inferior turbinate or in the upper nasal fossa anterior to the middle turbinate (3). The most common nasal foreign bodies includes nuts, seeds, beads, parts of plastic toys and other small objects. Foreign bodies are classified into animate and inanimate or organic and inorganic. Some foreign bodies remain in the nasal cavity without causing any harm while others may cause mucosal swelling leading to erosions, ulceration and epistaxis. This is usually seen with organic foreign bodies as they tend to absorb water and later turn into hard objects due to accumulation of minerals and thus become a rhinolith, causing more harm. On the other hand, batteries affect the nasal septum, causing septal perforation through liquefactive necrosis (4).

Attempts at removal may push the Nasal foreign body into pharynx causing airway hazard. Sedation is discouraged as it reduces gag and cough reflex which may increase complication.

MATERIAL AND METHOD:

The present study was carried out in the department of ENT and Head and Neck surgery, GMC Rajouri and AH from July 2019 to June 2020. The parameters noted were gender, age, time of presentation, location, dominant side, complications that may accrue from the placement or during removal.

Inclusion criteria: All paediatric patients who presented in emergency and OPD of ENT department with diagnosis of foreign body nose.

OBSERVATIONS

Table 1: Presentation time of patients with Nasal foreign bodies.

Duration of presentation	Frequency (%)
< 24 hours	28 (56%)
1-7 days	15 (30%)
8-14 days	1 (2%)
15-21 days	1 (2%)
22-28 days	-
> 4 weeks	5 (10%)
Total	50 (100%)

Table 2: Age group and frequency distribution of patients with nasal foreign bodies.

Age distribution	No. of patients
0-1yr	-
1-2yr	3 (6%)
2-3yr	13 (26%)
3-4yr	12 (24%)
4-5yr	14 (28%)
5-6yr	3 (6%)
6-7yr	2 (4%)
7-8yr	-
8-9yr	-
9-10yr	1 (2%)
> 10yrs	2 (4%)
Total	50 (100%)

Table 3: Sex distribution of nasal foreign bodies.

Sex	Number
Male	26 (52%)
Female	24 (48%)
Total	50 (100%)

Table 4: Side predominance of nasal foreign bodies.

Side	Number
Right	39 (78%)
Left	11 (22%)
Total	50 (100%)

Table 5: Type of nasal foreign bodies.

Type of foreign body	Number of patients
Seeds	17 (34%)
Pearl bead	11 (22%)

Parts of Plastic toy	4 (8%)
Stone	3 (6%)
Sponge/Foam	2 (4%)
Metallic objects	2 (4%)
Eraser/Rubber	2 (4%)
Baby corn	2 (4%)
Polythene	2 (4%)
Goat poop	1 (2%)
Chewing gum	1 (2%)
Leaf	1 (2%)
Rhinolith	1 (2%)
Total	50 (100%)

Table 6: Nature of nasal foreign bodies.

Nature of foreign body	Number of patients
Non-living	49 (98%)
Living	1 (2%)
Total	50 (100%)

Table 7: Instrument used for removal of nasal foreign bodies.

Instrument used for removal	No. of patients
With Eustachian tube catheter	44 (88%)
With Alligator forceps	6(12%)
Total	50

Table 8: Anesthesia required for nasal foreign bodies.

Anesthesia	Number of patients
Without anesthesia	48 (96%)
under general anesthesia	2 (4%)
Total	50 (100%)

Table 9: Post removal complication in patients with nasal foreign bodies.

Name of complication	No. of patients
Nose bleeding	40 (80%)
Without complication	10 (20%)
Total	50

DISCUSSION

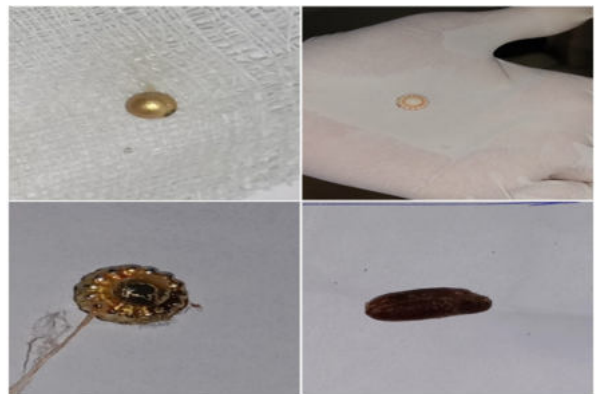
Nasal foreign bodies are common ENT Emergencies encountered in medical practice and timely intervention is required to decrease the rate of morbidity and mortality (8). Their physical characteristics whether they are organic or inorganic, metallic or non-metallic, sharp or blunt influence the choice of removal (5). In this study we found that foreign bodies of nose are most commonly seen in children below age of ten years which was found by many other researchers. Nasal foreign bodies are rarely found in adults but may be seen in psychiatric patients and mentally retarded.

In our study 56% of patients presented within 24 hours of insertion followed by 30% of patients reported with in 7days and only 10% of patients reported after 4 weeks, where as in study of Sarica 94.85% of patients presented within 24 hours (7). In our study the most common age of presentation is between 4-5yrs i.e. 28% as this age group of children's are more interested in exploring their bodies, which resembles with study of Yaroka A and Baranowski K (10,1). In Ricardo study, he concluded that nasal forigen bodies are more common between 0 to 4 years of life, also in Sarica study the mean age is 3.25-2.21years and only 8.82% were aged > 5 years (9). In our study slight male preponderance is there with 52% males, which is near Sarica study where it was 59.55%.In our study male female ratio is 1.08 which resembles with study of S A Ogah where it is 1:1. There is predominance of right side (78%) than left side (22%) in our study. In Sarica study the foreign body was observed with predominance in right side with 61.02%. Also in Ricardo study predominance of right side i.e. 64.29% is seen (8). We believe that the right side predominance may be due to a greater occurrence of right handed people in general population. Seeds (34%) are the commonest type of foreign body followed by beads (22%) , the

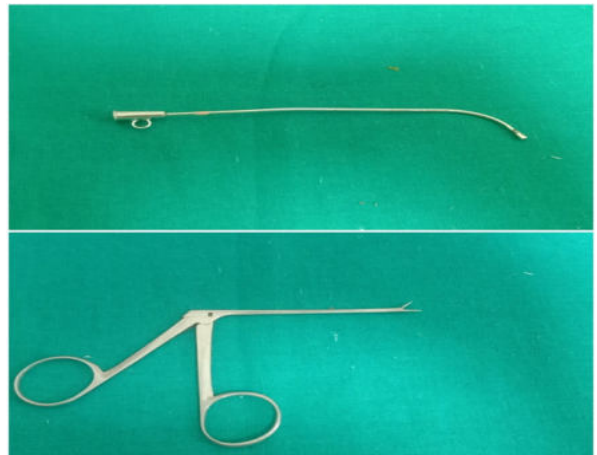
later coincides what was reported by S A Ogah. In many patients, it is seen that mothers gave their children beans or seeds to play which should be discouraged. 98% of foreign bodies are non living except one(2%) case where we find a dead honey bee in our study.

Most of foreign bodies (96%) were removed in OPD or in emergency room under direct vision which match S A Ogah study. Only 2 (4%) out of 50 need general anesthesia which is similar to study by Bast F where 5% of foreign bodies were removed in the operating theatre under anesthesia (2). The reason for those needed anesthesia was that, the patient was very uncooperative as multiple attempts had tried before coming to our hospital.

Nasal bleeding (80%) was the only complication found in our study, because of damage to nasal mucosa and controlled only by finger compression or by putting small cotton pack.



Picture 1: showing different type of nasal foreign bodies in our study.



Picture 2: showing instrument used (Eustachian tube catheter, alligator forceps) in removal of nasal foreign bodies in our study.

CONCLUSION

Nasal foreign bodies are commonly encountered in ENT OPS's and emergency especially in the age group of less than 5 years. The situation can be avoidable if parents are careful and attentive. Beads, parts of plastic toys, seeds were among the most common foreign bodies. Almost in all cases it can be retrieved easily. It is important to train otolaryngologist residents in emergency department as complication rate is directly related to the lack of proper instruments and experience. Health education and public awareness programs should be organized to educate people about danger of nasal foreign bodies.

REFERENCES

1) Baranowski K, Sinha V. Foreign bodies nose. Treasure Island (FL): Statpearls

- Publishing; 2017.
- 2) Bast F, Lee C, Von Jaschke N, Olze H. Management of foreign Bodies in the mouth, nose and ears in children in the emergency room, *Iran J Pediatr.* 2017; 27(6); e6257.
 - 3) Chan TC, Ufberg J, Harrigan RA, Vilke GM. Nasal foreign body removal. *J. Emer Med.* 2004; 26:441-5.
 - 4) Kalan A, Tariq M. foreign bodies in the nasal cavities: a comprehensive review of the aetiology, diagnostic pointers, and therapeutic measures postgrad. *Med. J.* 2000; 76:484-7.
 - 5) Kiger JR, Brenkert TE, Losek JD. Nasal foreign body removal in children. *Pediatr Emerg Care.* 2008;24(11):785-92.
 - 6) S A ogah, R R Odekunle and T R Yeye-Agba. Nasal foreign bodies: A retrospective study. *Nigerian journal of otorhinolaryngology* vol15, 2018,37-39.
 - 7) Sarica S, Krik S. Foreign body in the nose in children: The Relationship with the Dominant Hand, Parental Behaviour and level of Education, *Iran J Pediatr.* 2018; 28(5).
 - 8) Svider PF, Sheyn A, Folbe E, et al. How did that get there? A population-based analysis of nasal foreign bodies. *IntForum Allergy Rhinol.* 2014;4(11):944-9.
 - 9) Ricardo RF. Nasal foreign bodies: description of types and complications in 420 cases. *Brazilian journal of otorhinolaryngology*; vol,issue 1, jan to feb , 2006,18-23.
 - 10) Yaroko A, Irfan M. An annual audit of the ear foreign bodies in hospital university sains Malaysia. *Malays Fam Physician.* 2012;7(1):2-5.