

ORIGINAL ARTICLE**STUDY ON CLINICOEPIDEMIOLOGICAL PATTERN OF FOREIGN BODIES IN OTORHINOLARYNGOLOGY AND ASSOCIATED MORBIDITIES****Richa Gupta¹, Manish Mittal²****Author's Affiliations:** ¹Assistant Professor. Dept. of ENT, S.S. Medical College, Rewa (MP), ² Assistant Professor, Dept. of PSM, Pacific Medical College, Udaipur (Rajasthan)**Correspondence:** Dr Manish Mittal E-mail: drmanishmttl3@gmail.com**ABSTRACT****Background:** Foreign bodies in ENT are common occurrence. The present research was conducted to study clinicoepidemiological pattern of 117 cases of foreign bodies in ear, nose & throat presented to the S.S. Medical college & G.M. Hospital, Rewa.**Materials & methods:** The present study was a case series of 117 patients of foreign bodies in ear, nose & throat who presented to the S.S. Medical college & G.M. Hospital, Rewa from January 2014 to August 2014.**Results:** Among 117 patients 58.12 % were males with age ranging from 14 months to 75 years. Most patients 82 (70.09 %) belong to <10 year age group. Commonest site of lodgement of foreign body was ear (58.97 %) followed by nose (18.80 %). Commonest type of foreign body was insect (24.79 %).**Conclusion:** Foreign bodies in ENT are commonly encountered. They should be diagnosed timely and managed with utmost care to prevent complications.**Keywords:** Ear, Foreign body, Insect, Nose**INTRODUCTION**

Otorhinolaryngeal foreign bodies are continuing medical problem and their referral to the otorhinolaryngologist for removal is a common occurrence.¹⁻³ The incidence of foreign body is seen throughout the year with a surge in cases during rainy season when flying insects are more common. The FB removal success depends on the patient's cooperation, the doctor's ability, the type of FB, the previous manipulation, the visibility and depth of the FB and the available equipment.⁴

Foreign body in ear nose & throat can pose a complication if not treated timely by skilled otorhinolaryngologist. The negligence of patient and their attendants can lead to delayed diagnosis and difficulty in managing the case. The cooperation by patient in eliciting history and while local examination of foreign body by otorhinolaryngologist plays a vital role. Foreign body in ear can be managed with the help of removal by instruments like jobson horn probe, alligator forceps, packing forceps or syringing depending on the type of foreign body and duration between time of insertion and presentation. FB can be removed either under local or general anaesthesia depending upon age of patient.

METHODOLOGY

The present study was a case series of 117 patients of foreign bodies in ear, nose & throat who presented to the S.S. Medical College & G.M. Hospital, Rewa from January 2014 to August 2014. The relevant data were collected with regard to age and sex distribution, site of lodgement, type of foreign body, laterality, associated complaints, duration between incident & presentation, clinical presentation, complication & management as per the predetermined questionnaire. All the patients were examined thoroughly with appropriate investigations like X-ray neck, chest and abdomen as per requirement. Various instruments played a vital role in management such as Jobson Horne probe, crocodile forcep, endoscope, laryngoscope and oesophagoscope with forceps.

RESULTS

The male predominance i.e. 58.12 % was observed in present study. Most patients (70.09 %) belonged to < 10 year age group followed by 11.11 % in 11-20 year age group (Table no. 1).

Table 1: Age-wise distribution of cases (N=117)

Age	Cases (%)
<10	82 (70.09)
11-20	13 (11.11)
21-30	11 (9.40)
31-40	6 (5.13)
41-50	3 (2.56)
>50	2 (1.71)

Table 2: Distribution of cases according to site of lodgement of foreign body (N=117)

Site	Cases (%)
Ear	69 (58.97)
Nose	22 (18.80)
Oesophagus	19 (16.24)
Hypopharynx	3 (2.56)
Nasopharynx	1 (0.85)
Oropharynx	1 (0.85)
Larynx	1 (0.85)
Bronchus	1 (0.85)

Table 3: Type of foreign body as per its location (N=117)

Location	Type	Cases (%)
Ear	Insect	29 (24.79)
	Wheat	20 (17.09)
	Pencil tip	4 (3.42)
	Cotton ball	3 (2.56)
	Star sequence	1 (0.85)
	Others	12 (10.26)
	Nose	Beans
Groundnut		7 (5.98)
Tamarind seed		3 (2.56)
Insect		1 (0.85)
Button		1 (0.85)
Oesophagus	Coin	17 (14.53)
	Denture	2 (1.71)
Hypopharynx	Fishbone	2 (1.71)
	Glass	1 (0.85)
Nasopharynx	Groundnut	1 (0.85)
Oropharynx	Fishbone	1 (0.85)
Larynx	Fishbone	1 (0.85)
Bronchus	Nosepin	1 (0.85)

The youngest patient was 14 months while oldest patient was 75 years old. The most common site of lodgement of foreign body is ear (58.97 %) followed by nose (18.8 %) cases. Least common site of lodgement was nasopharynx, larynx, bronchus and oropharynx with 0.85 % cases each (Table no. 2).

The time of incidence and presentation varied from within an hour to 1 month. About 52.13 % patients presented within an hour of foreign body insertion while 25.64 % percentage patients presented within 24 hours. Rest of the cases presented i.e. 8.54 % arrived between 1-10 days and 13.67 % cases came between 11 days to 1 month.

The most common type of foreign body in ear was insect (24.79 %) followed by wheat in 17.09 % cases. Beans were the commonest foreign body in nose (8.58 %) cases. Coin was the most common foreign body in oesophagus followed by denture. Fishbone came out to be the commonest foreign body in hypopharynx, oropharynx and larynx (Table no. 3).

About 44.92 % cases among foreign body ear presented without symptoms. While the common symptoms noted were blockage sensation in 29.98 %, hypoacusis in 14.49 %, otalgia in 11.59 %. Among foreign body nose the symptoms were blockage sensation (45.45 %) & unilateral rhinorrhoea (31.81 %). No symptoms were seen in 22.7 % cases. Odynophagia was seen in 31.57 % cases and vomiting in 15.78 % of foreign body oesophagus. No symptoms were observed in 52.63 % foreign body oesophagus cases. In foreign body oropharynx & larynx foreign body sensation was the symptom. The foreign body nasopharynx and bronchus presented with no symptom and respiratory distress respectively. The complications such as laceration of external ear i.e. 14.49 % and tympanic membrane perforation i.e. 1.45 % were seen in cases handled previously before arrival in hospital. Among foreign body nose patients 4.54 % patient had perforation of nasal symptom. Foreign body in 29.06 % cases were removed under general anaesthesia or sedation. The foreign body ear was removed with the help of jobson horn probe, syringing (in cases of intact tympanic membrane), nasal packing forceps or hook. In oesophageal foreign bodies, oesophagoscopy and forceps were used for removal. For bronchial foreign bodies bronchoscope was used.

DISCUSSION

Foreign bodies in ear nose & throat account for majority of emergencies in otorhinolaryngology. Foreign body refers to any object that is placed in nose or mouth that is not meant to be there and could cause harm without any medical attention.⁵ To reach a final diagnosis thorough history should be elicited along with detailed examination and appropriate investigations. In majority of the cases children reported the history of foreign body insertion to their parents or caregivers. This helped the ENT surgeon in adequate and timely removal of foreign body. In most of the cases, by how easy it is to identify such foreign bodies and for the patient to report the issue to his/her caregiver.⁶

In our study we found male predominance which was in accordance with studies of other authors.⁴ Ear, nose, and throat (ENT) foreign bodies are more common among children, although adult age groups are involved.⁷ In present study we found that most of the patients belong to less than 10 year age group

with incidence of foreign bodies decreasing as age advances. This might be because of inquisitive and exploratory behavior of children.

In our study we found ear to be the commonest site of lodgement of foreign body followed by nose, oesophagus and pharynx. This is in accordance with previous studies⁷ with ear being the most common site and nose second most common. Our study differs in oesophagus being third common site which might be due to small size of ingested foreign bodies which passed pharynx. Mostly foreign body cases presented within 24 hours with a vast majority of patient arriving within an hour of foreign body insertion. This is in accordance with previous studies.⁴ The time of presentation of patients immediately after insertion indicates their awareness towards their health and knowledge of various ailments. A few patients arrived after a delay of 24 hours. This might be due to the lack of ENT surgeon in their locality or their inaccess to medical facilities. A few patients were already handled by general practitioners and presented with complication such as laceration of external ear canal and tympanic membrane perforation. In foreign body ear cases the most common foreign body was insect followed by wheat. Wheat is a common foreign body in this region might be because children play with wheat during harvesting season and insert it while playing. Multiple foreign bodies in both ears were found in such cases. Hence otorhinolaryngologist must always be careful while dealing with these foreign bodies to ensure complete removal.

In the foreign body ear patients the symptoms may start with hypoacusis, otalgia, otorrhoea or tinnitus. In the oropharynx, the main symptom is odynophagia.^{4,8} In our study blockage sensation, hypoacusis or otalgia were the main symptoms. In foreign body nose cases blockage sensation and unilateral rhinorrhoea was the common symptom. In oesophageal foreign bodies odynophagia and vomiting were the most common symptoms. Foreign bodies are of grave concern to the surgeon as their removal not only demands a great skill but there is unpredictability in the degree of difficulty of the procedure.⁹ FB removal is often carried out in an operating room, with the patient under sedation or general anaesthesia.^{4,10} In present study 29.06 % required general anaesthesia or sedation. In majority of cases requiring anaesthesia patient was either uncooperative especially children or foreign body was in oesophagus or bronchus. In a previous study the relationship between the need for general anaesthesia for removal of FB ranged from 8.6 to 30% .¹¹

CONCLUSION

Foreign body cases should be handled with utmost priority especially the cases with prior manipulations and complications. The masses should be educated about consulting otorhinolaryngologist in case of foreign body insertion. The caregivers should encourage their child to inform their parents without hesitation.

A vast majority of cases can be handled easily but otorhinolaryngologist must be vigilant enough to categorize the cases as per cooperation, previous manipulation, dimensions and location of foreign body in order to ensure best possible procedure and need for anaesthesia.

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