ORIGINAL ARTICLE

Ear, Nose and Throat Foreign Bodies: An analysis of 150 cases

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ABSTRACT

Aim: To analyze different types of foreign bodies, its presentation and insertion in ear, nose and throat.
Method: This hospital based cross sectional study was conducted in the department of ENT, Head & Neck Surgery, Mardan Medical Complex,from September 2012 to August 2013. Data was collected using predesigned proforma while taking history and clinical examination and also interviewing the caregiver of the paediatric patients, which included age, gender, address, level of education, site of lodgment, type and durationof FB. The data collected from 150 patients were entered and analyzed by using SPSS version16.0.
Results: One hundred and fifty cases of foreign bodies in ENT were included in the study. The mean age of the study subjects was 15.13±10.17 years, with minimum age of one and half year and maximum of 56 years. Majority of patients were children of age group of 0-10 years (26.66%). Males were predominant (61.33%). Majority of patients, as well as caregivers of children were either illiterate or with literacy up to primary level. Foreign body of the ear was the commonest finding with 88 cases (58.66%) followed by nose 47 cases (31.33%). Most of foreign bodies were non-living 128 (85.33%) while living insects were seen in 22 cases (14.66%). About 99 patients (66%) came within one day of lodgement.
Conclusion: Foreign Bodies are common in ear, nose and aero-digestive tracts of children of younger age. Males were the common affectees and low level of literacy of parents or guardians was common observation in this study. Earlier the treatment of FB lesser will be the complication.
Keywords: Foreign body, inorganic, living, non- living, organic, Ear, Nose, Throat.

INTRODUCTION

Foreign bodies (FB) can be divided into living and non living types. The non living FBs are further divided into organic and inorganic types. Occurrence of foreign body in the ear, nose and throat is not uncommon problem encountered by otolaryngologists, pediatricians and primary care physicians[1]. About 11% emergencies in ENT are due to foreign bodies. Younger children less than five years are most common sufferers. There are certain factors responsible for insertion of foreign body into ear, nose and throat like curiosity to explore the orifices especially by children[2]. FB insertion occurs due to easy availability of FBs and absence of supervision. Other factors include imitation, boredom, making a fun, mentally retarded persons, insanity and some attention deficit disorders[1]. A well established and continually evolving guide lines have been adopted by the developed countries but no such protocol is followed in developing countries[3]. Many people treating such cases by themselves without consulting specialized personnel to save time, money, considering it a minor ailment and lack of otorhinolaryngologist[2]. The removal of these FBs can be achieved with help of sound anatomical knowledge, expertise in skills and techniques depending on the lodgment of FB. If FB is not removed in time or attempted by inexperienced person it gives rise to very fatal complication[4].

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MATERIALS & METHODS

This hospital based cross sectional study was conducted in the department of ENT, Head & Neck Surgery, Mardan Medical Complex, Mardan from September 2012 to August 2013 after getting approval by Institutional Review Board. Data was collected using predesigned proforma while taking history and clinical examination and also interviewing the caregiver of the paediatric patients, which included age, gender, address, level of education, site of lodgment, type and duration of FB. Patients with any types of foreign bodies and patients of all ages were included in the study. An informed consent was taken from every patient or parents of patient in case of children. The data collected from 150 patients were entered and analyzed by using SPSS 16.0 version.

RESULTS

One hundred and fifty cases of foreign bodies in ENT were included in the study. The mean age of the study subjects was 15.13±10.17 years, with minimum age of one and half year and maximum of 56 years. Majority of patients were children of age group of 0-10 years (26.66%), followed by 11-20 years (18%) (Table 1). Males were predominant (61.33%). Majority of patients, as well as caregivers of children were either illiterate or with literacy up to primary level (Table 2) Foreign body of the ear was the commonest finding with 88 cases (58.66%) followed by nose 47 cases (31.33%), esophagus 8 cases (5.33%) and foreign body in the bronchus was 7 cases (4.66%). Most of foreign bodies were non-living 128(85.33%) while living insects were seen in 22 cases (14.66%). Among the non-living ones organic substances were 99 (66%) while inorganic FBs were 29 (19.33%) (Table 3). About 99 patients (66%) came within one day of lodgement, 28 patients (18.66%) between 2-4 days and 16 patients (10.66%) between 5-7 days. There were 7 patients (4.66%) cases who presented after 7 days (Fig 1).

Fig 1: Lodgment duration of foreign body at presentation (n-150).

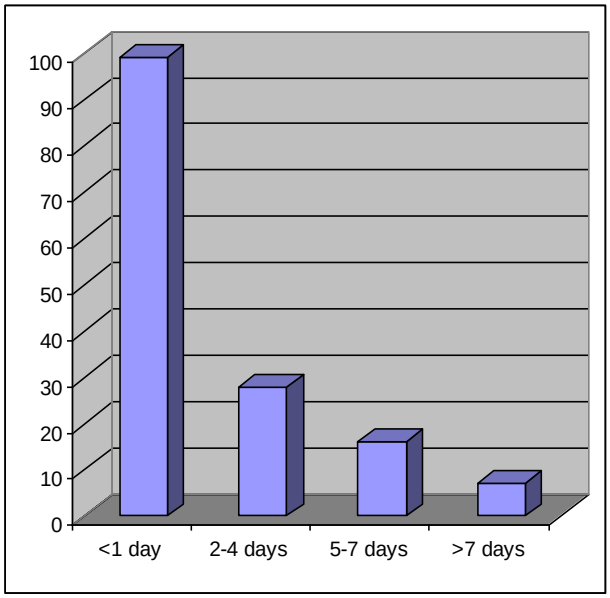

Table 1: Age-wise distribution of patients (n=150)

Age in years	=n	%age
<10	40	26.66
11-20	27	18
21-30	25	16.66
31-40	21	14
41-50	19	12.66
51-60	11	7.33
>60	7	4.66

Table 2: Gender distribution and education level of patients (n=150)

Gender Distribution	=n	%age
Male	92	61.33
Female	58	38.66
Level of education of Patient/ caregiver		
Illiterate	62	41.33
Primary	41	27.33
Secondary	32	21.33
Bachelors	11	7.33
Master	4	2.66

Table 3: Distribution of foreign bodies according to type (n=150).

Type of Foreign Body	=n	%age
Living	**22**	**14.66**
Insect	22	14.66
Non-living	128	85.33
Organic	*99*	*66*
Bones(Chicken, Fish, Sheep)	47	31.33
Maize, rice grain, bean, peanut, wheat grain	41	27.33
Plastic pieces	8	5.33
Bird feather	3	2
Non-Living *Inorganic*	*29*	*19.33*
Pencil or pen pieces	11	7.33
Stone	7	4.66
Cotton balls	5	3.33
Paper pieces	3	2
Marble piece	3	2

DISCUSSION

In Otorhinolaryngology practice FB accounts for 11% emergency faced by otorhinolaryngologist. FB can be inserted mostly by the children in natural orifices, such as: ear, nose, oesophagus or bronchus[5]. FB in the ear or nose may be safer from ENT point of view but it causes a great worry for the parents. However FB in airway or esophagus if not dealt in time may cause morbidity and mortality. We noticed that majority of the patients were under 10 years of age which is consisting with other studies[6,7]. The reason may be that children are more exposed to FBs. We also noticed that male were predominantly suffered (61.33%) which is also comparable to national and international studies[8,9]. The explanation for male predominance will be that male children are more active and involved in outdoor activity in our set up. In this study it is found that most of the parents or caregivers were illiterate or having low level of knowledge that is also contribute to the FB insertion by children which also supported by Shrestha I[10]. Similarly the other factors responsible for FB insertion could be boredom, frustration and some bad habits of ear and nose picking by adults. The complication of FB insertion is also exceeds in people with low literacy rate due to lack of awareness and giving no

importance to such incidence.[11] We noted that FBs were common in ears (58.66%) followed by nose (31.33%) which is keeping with results of Shrestha I, where FB ear was dominant (47%) and FB nose was 23%[10]. FB in throat and bronchus was less common in this study which is also consistent with other studies[7,9]. Similarly Adhikary B studied a total of 207 cases with male predominance of (60%) with male to female ratio of 1.5: 1, majority of patients were children under 10 years and in 70% cases FB was found in ears[12]. Main presentation of patients were pain, blockade, itching and difficult hearing which were consistent with literature[5,11]. FB in the ear was found in the bony part which is the narrowest part of the meatus. This may be sometime due to attempt of removal by the patient himself which results in pushing the FB deep into the meatus. This deep FB may leads to perforation of tympanic membrane or even suppurative otitis media[4]. We observed that non-living FB was on top (85.33%) while living insects were only 14.66% which is comparable to the report of Shrestha I[10]. Likewise Silva BSR also found that non-living FB was the commonest FB, such as cotton, was 43.02%, followed by plastic artifact 18.60% while the common FB nose was fragment of brush and paper (33.33%)[14]. Among the non-living ones organic substances were 66% while inorganic FBs were 19.33% which is also comparable to the study of Shrestha I[10]. The reason may be easy availability of organic substance in our day to day life. Most of the FBs were removed from ear, nose and aero-digestive tract under general anesthesia in children while in few patient FB was removed without anesthesia especially FB nose when it was lying anteriorly which is comparable to other studies[4,7]. FB ears were removed with forceps, suction, jobson horn probe while FBs of esophagus and bronchi were removed with endoscopes. In this study majority of patients (66%) were presented within 24 hour of lodgement of FB and there was minimum complication that is consistent with literature[15].

CONCLUSION

Foreign Bodies are common in ear, nose and aero-digestive tracts of children of younger age. Males were the common affectees and low level of literacy of parents or guardians was common observation in this study. Different types of FB can be inserted by children of different age and location of FB may also differ. Earlier the treatment of FB lesser will be the complication.

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