

Aerodigestive and Ear Foreign Bodies at Lumbini Medical College

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ABSTRACT:

Introduction: Aerodigestive and Ear foreign bodies are common Ear Nose Throat (ENT) emergencies. They are commonly encountered by otolaryngologists, paediatricians, and primary care physicians. **Objective:** The aim of this study is to analyze different types of foreign bodies and sociodemographic correlates of self-inflicted foreign body insertion in ear, nose and throat. **Method:** Seventy-four patients with aerodigestive foreign body coming to our Hospital over a period of one year, starting from January 1, 2012, were enrolled in the study. Hospital based cross sectional descriptive study was done. Socio-demographic data was collected by history and clinical examination of all those patients. The data collected from 74 patients were entered and analyzed using descriptive and analytical statistical methods using SPSS version 17.0. **Result:** There were total of 74 cases of ENT foreign body. Male predominance was noted (61%). Foreign body of ear was found to be most frequent (43%) followed by throat (37%) and nose (20%). Foreign body of nose was almost limited in paediatrics population (14 out of 15) whereas in the elderly group foreign body of throat was only found. Seeds, meat bolus or bone or both, insects and cotton bud were the most common foreign bodies. There was significant relation between the type of foreign body and age ($p < 0.05$) and the living foreign body and ear. **Conclusion:** Foreign bodies of nose, ear and throat are common in ENT department. They should be timely managed to prevent potential complications.

Keywords: ear • foreign body • nose • throat

INTRODUCTION:

Ear, nose and throat (ENT) foreign bodies are one of the most common emergencies faced by otorhinolaryngologists. The different types of foreign bodies (FB) are classified as living and non-living. The non-living ones are categorized into organic and inorganic.^{1,2} Children are naturally curious about their surroundings and about our body orifices. They

are inclined to place toys, foodstuff and household articles in the ear, nose or the oral cavity. It is even difficult for them to control the foreign body because of lack of posterior dentition.^{3,4} Foreign bodies lodged within the ear, nose, larynx, trachea, pharynx or esophagus may present as a minor irritation or a life-threatening problem.^{3,5,6} Foreign body in adults is usually accidental. Coins are the commonest FB in throat in children while bone are more common in adult population.⁴ This study was carried out to compare the incidence and varieties of aerodigestive foreign bodies presented in our hospital and analyze the socio-demographic correlates.

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METHODS:

This hospital based cross sectional study was performed from January 2012 to December 2012 in the Department of ENT, Lumbini Medical College Teaching Hospital, Palpa. Data were collected while taking history, during clinical examination

and during removal procedure. Patients or the caregivers of children were interviewed about age, sex, address, site of lodgment, type of FB. Patients with any types of aerodigestive foreign bodies and patients of all ages were included in the study. Aural foreign bodies were removed with forceps, hook or by syringing under local or general anesthesia according to age and type of foreign bodies and cooperation of patients. All nasal foreign bodies were removed with foreign body hook or forceps in the outpatient department. The foreign body of the throat was subjected to x-ray soft tissue neck lateral and AP and removed by rigid pharyngoscopy or oesophagoscopy. The data collected from 75 patients were entered and analyzed using SPSS 17 software.

RESULTS:

Seventy-four cases were included in the study. Thirty-four (46%) patients including an infant were less than 16 years of age. Next 34 (46%) were adults of age 17 to 60 years. Six (8%) were elderly, above 60 years of age. The age of the patients ranged from eight months to 79 years. There were 45 (61%) males and 29 (39%) females with male to female ratio of 1.55:1.

Foreign body of the ear was the most common. It was found in 32 cases (43%). It was followed by the foreign body of throat which accounted for 27 (37%) cases. There were 15 (20%) cases of foreign body nose. Site of the foreign body was analyzed with the age-group. In the pediatric group, nasal foreign bodies was common, which constituted 14 out of 15 (93%) foreign body nose. In the elderly group (>60 years of age), all cases (100%) were of foreign body throat. Seeds were the most common foreign body overall. Types of foreign bodies are shown in Table 1.

Table 1: Type of foreign body and their frequency (N=74)

Type of foreign body	n	%
Seeds	17	23
Meat bolus	16	22
Insects	12	16
Cotton bud	9	12
Bead, coin, fish-bone (each)	4	5.5
Bamboo splinter	1	1.35
Wood splinter	1	1.35
Leech, button cell (each)	1	1.35
Thumb pin, erasure (each)	1	1.35
Orange bolus	1	1.35

DISCUSSION:

Foreign body is a common ENT emergency accounting for about 11% of the cases in ENT emergency.^{1,5,7} Our study showed male predominance with M:F ratio of 1.55:1 which is also supported by other studies.^{1,2,8,9,10,11,12} However a study by Koirala et al. showed female predominance.⁴ Foreign body ear was the most common (43%) followed by throat (37%) and nose (20%). This was comparable to similar studies.^{2,13} Aural foreign was found in pediatrics and adults but not in elderly. Children have the tendency to explore the objects they get and are curious about the body orifices including ear. Adults have a habit of picking ear with ear bud. This is why ear bud were the second most common type of aural foreign body. Nasal foreign body was almost exclusively limited to pediatric age group. There were 15 nasal foreign bodies out of which 14 were present in pediatric group. The one in the adult was a leech which is not a common foreign body. This fact is supported by other studies.^{1,14,15} The relation of the nasal foreign body with pediatric age group was statistically significant. Insects were the most common living foreign body. They get access to ear during night or when the subject is sleeping. In our study 12 out of 13 living foreign body were insect, mostly cockroach, all in the ear. One was a leech that was found in nose. There was a statistical significant relation between living foreign body and ear as the site of foreign body. The patient with the leech in the nose gave history of drinking water from stream in the jungle. This behavior is common in the hilly region of the country. Among the foreign body of throat, coin were common in pediatric group. Meat bolus or bone or bone were common in adults and elderly. This is similar to the findings in a study by Koirala et al. done in Manipal Teaching Hospital.⁴

In the elderly group, all the cases were of FB throat. This may be due to poor dentition, poor coordination during swallowing, and reduced sensation due to absent teeth. Of all the foreign body, seeds were the most common (n=17, 23%). This is easily understood by the fact that LMC gets most of the patient directly depending on agricultural. Of the seeds, Corn was the most common.

Boiled, roasted, barbecued and raw corn seeds were found. In the season of corn harvest, one can see a large population enjoying different corn recipes as side or main meals. Foreign body ear was removed by syringing, with forceps or ring curette. Most of

them were removed in OPD. Small uncooperative children or children in whom manipulation was done outside with laceration of canal skin was taken to OT for GA. All the foreign body of nose were removed in OPD with topical anesthesia and nasal decongestion 20 minutes prior to removal to reduce pain and bleeding during removal. FB of pharynx and upper esophagus was removed by rigid esophagoscopy. Those of mid or lower esophagus was first tried with flexible esophagogastroscope. This is due to the fact that pharynx and upper esophagus are collapsed structures so that flexible endoscopy of these area would result in difficult visualization, instrumentation and manipulation for removal of foreign body. We had a case of eight month male child who developed acute stridor and was treated in peripheral hospital in line of LRTI. In our emergency, he was initially

thought of having RTI but on X-ray chest was found to have a foreign body in throat. It was a thumb-pin in the hypopharynx with the pointed end anteriorly and repeatedly puncturing the tissue resulting in edema and airway compromise. He was successfully managed.

CONCLUSION:

Foreign bodies are common in ear, nose and throat. Type and site of foreign body may differ in different ages and between different places. They generally present with minor irritation but can potentially be associated with significant complications if not taken care of properly. Acute respiratory symptoms in a child should always arouse the suspicion of aerodigestive foreign body.

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