

Foreign Bodies in Ear, Nose and Throat - A Clinical Audit

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Abstract

Background: To study the pattern of foreign bodies of ear, nose and throat.

Method: This prospective study was conducted on 85 patients who presented with complaint of foreign body insertion / impaction.

Results: These cases comprised of 46 (54%) males & 39 (46%) females having male: female ratio= 1.17: 1. Out of all patients 37 (43.52%) presented with ear foreign bodies, 25 patients (29.4%) presented with nasal cavity foreign bodies, 23 patients (27.05%) presented with throat (oropharyngeal / hypopharyngeal) foreign bodies. General anesthesia was required in 16 cases (18.8%). Most of foreign bodies were removed by house officers under supervision by Consultants.

Conclusion: Foreign bodies remain a major concern in ENT practice. Majority of children were children

Key Words: Foreign bodies, Ear, Nose, Throat

Introduction

A foreign body (FB) is an object or piece of exogenous material that has entered body by accident or design in a region where it is not meant to be and can cause damage by its presence if immediate medical attention is not sought.¹ A foreign body of ENT is an object which lodges into a craniofacial orifice which includes the ear, nose, or throat. Foreign bodies (FB) in the ears, nose or throat are a common presentation in otorhinolaryngology (ENT) emergency services. FBs can be introduced spontaneously or accidentally in both adults and children. Generally, FBs are more common in younger children; this may be due to various factors such as curiosity to explore orifices, imitation, boredom, playing, mental retardation, insanity, and attention deficit hyperactivity disorder, along with availability of the objects and absence of watchful caregivers.²

Various methods of FB removal have been described. In the ear the most commonly used method for removal is by syringing, while other instruments like forceps, fine hook, hair clip and suctioning can also be used. Live insects are first killed by drowning in methylated spirit followed by syringing.^{3,4,5} In the nose; removal is accomplished by the use of wax hook,

forceps or eustachian tube catheter. In the throat, FB removal is accomplished by grasping with forceps while in the larynx and in the oesophagus removal is usually done under general anaesthesia.^{6,7,8}

Although FB removal is usually a simple procedure, its potential complications call for the aid of an ENT physician. Successful removal relies on a number of factors, including the location of the FB, what it is made of, the physician's dexterity, the equipment available, and patient cooperation. FB removal is often carried out in an operating room, with the patient under sedation or general anesthesia. Delayed treatment has been correlated with larger and more severe lesions, in addition to more complications.⁹

FB are mostly removed by doctors on call under the supervision of consultants. Foreign body impaction continues to impose a heavy burden of patients for otorhinolaryngologist which have been estimated to account for approximately 11% of the total cases seen in ENT services.¹⁰

Patients and Methods

This study was conducted in the department of ENT, DHQ Hospital, Rawalpindi. Cases were included from the 3 months 1st November 2016 to 25th January 2017. Consecutive patients presenting with foreign bodies in ear, nose, throat or aero digestive tract were included in the study. Demographic data as well as site were obtained from the patient or the relatives in case of children. An informed consent was taken from patients or attendants. The type of anaesthesia, type of procedure involved in dealing & removing of foreign bodies were recorded.

Results

A total of 85 cases of foreign body inserted were included in the study. Majority (70%) of cases were children, aged less than 10 years. Out of 85, 46 (54%) were males & 39 (46%) were females giving male / female ratio of 1.17: 1 (table 1). The ears were the most common site of lodgment of foreign bodies (Table 2; Figure 1). This occurred in 37 (43.52%) patients. This was followed by the nasal cavities in 25 (29.4%) and throat (oropharynx & hypopharynx) in 23 (27.05%) patients (Figure 2). General anesthesia was required in 16 (18.8%) patients which mostly included foreign bodies in hypopharynx and tracheobronchial tree .

Procedures which were done for removal of foreign bodies include simple removal with hook or forceps in most cases 79(92.95%) of nasal & ear foreign bodies. Removal with Direct laryngoscope and hypopharyngoscopy was done in 6(7.05%) (Table 3). Most of foreign bodies were removed by House officers on duty (58 cases) under supervision of consultants. Direct laryngoscopies (n=28) were performed by consultants .



Fig.1. A centipede retrieved from ear of a patient



Fig 2. A battery cell removed from nose of a child

Table 1: Gender wise distribution of patients

Gender	No	%AGE
Male	46	54%
Female	39	46%

Table 2: Site of Foreign Bodies

Site	No	Percentage %
Ear	37	43.52%
Nasal Cavities	25	29.04%
Throat (oropharynx & Hypopharynx)	23	27.05%

Table 3: Type of Procedure for Removal of Foreign Body

Type of Foreign body	Procedure for Removal	No. of cases (%)
Ear / nasal foreign bodies	Removal with forceps, syringing or hook	92.95%
Throat(Oropharynx & Hypopharynx)/for eign bodies	Direct laryngoscopic & hypopharyngoscopic removal	7.05%

Discussion

Foreign bodies in some studies were seen to be acquired inadvertently in some cases and deliberately in a few. We found higher incidence of foreign bodies among children under 10 years (>70% of cases).¹² This is the experimental and inquisitive age when children are mainly in the primary school and prone to rough plays. This is consistent with studies done by other authors who observed that children less than ten years more prone to inserting foreign bodies into various orifices in head and neck region.^{13,14} We observed male preponderance with male to female ratio 1.17: 1, which is consistent with studies done earlier that males are more susceptible than female to foreign body insertion.¹⁵ The ears are the most common site of lodgment of foreign body with 37 patients (43.52%) followed by nose 25 patients (29.4%) and then throat (oropharyngeal / hypopharyngeal) 23 patients (27.05%) and this is coincident with earlier findings ¹⁶. General anesthesia was required for 16 (18.8%) of our patients. Other researchers have discussed about anesthesia in ENT emergencies particularly GA may be required for removal up to 30 % of objects, especially in pediatric population in case of aural foreign bodies .^{17,18} Our study showed most of foreign bodies in ear and nose are removed with forceps, syringing or hook without GA. Mostly techniques for removal of foreign bodies include irrigation, suction, or a combination of these.¹⁹ Foreign bodies lodged in orophaynx and naso pharynx were also removed under LA as office procedure without GA. Usually rigid endoscope was used for removal of bone chips in hypopharynx and oesophagus under general anesthesia. It has been talked about that rigid endoscopy gives a much better view of hypopharynx, cricopharynx and first few centimeters of cervical oesopohagus.²⁰ Although rigid endoscope is traditionally believed optimal instrument for tracheo bronchial foreign bodies. ²¹ Nowadays, standard 3.6mm pediatric flexible bronchoscopes are used.^{22,23} Unfortunately these bronchoscopes are not available at our setup. In present study 58 cases (67.6%) of foreign bodies were removed by House Officers under supervision of consultants and 27(31.76%) cases by Consultants themselves which is close to study that found 62% ENT emergencies are managed by senior house officers and 11% by senior registrars and 1% by consultant.^{24,25}

Conclusion

1. Most vulnerable group, for foreign bodies in ear, nose and throat is children
2. Ear is the commonest site.
3. Foreign body should always be removed under supervision and in children preferably under general anesthesia.

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