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Original article:

A clinical study of foreign bodies in ear, nose and throat and their management

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Abstract:

Introduction: Foreign bodies in ear, nose, throat accounts for about 1/3rd emergencies seen in ENT Department. The study of foreign bodies in the ear, nose and throat is a very important and interesting subject.

Material and methods: This observational study was conducted under the Department of ENT, Tertiary care centre , Dhule. Prior approval of Institutional Ethics Committee was taken before start of the study. A written signed informed consent was taken from all the patients prior to their enrolment in the study.

Results: In the present study, it was observed that earache was the most common symptom present in 49% of the cases, followed by aural fullness in 40% of the cases. Other symptoms were nasal blockage (27%), fever (27%), ear discharge (23%) and respiratory distress (16%). Dysphagia (14%), cough (14%), vomiting (13%), nasal discharge (13%), pricking sensation in throat (13%), tinnitus (12%), epistaxis (12%) and pooling of saliva (8%) were present in less than 15% of the cases, each.

Conclusion: Foreign bodies in ear, nose and throat are most commonly encountered in ENT Department. While foreign body impaction in children occurs due to their tendency to place objects in ear, nose and throat, the impaction in adults are a result of altered consciousness, sedation, alcoholism, etc. Early diagnosis and prompt removal of foreign bodies are important to prevent long term sequelae.

Keywords: Foreign bodies, ENT , ear discharge

Introduction:

Foreign bodies in ear, nose, throat accounts for about 1/3rd emergencies seen in ENT Department. The study of foreign bodies in the ear, nose and throat is a very important and interesting subject. However, the importance of foreign bodies in ear, nose and throat was not particularly noted until early part of the 19th century.[1] Foreign

bodies can be introduced spontaneously or accidently in both adults and children. Generally, ENT FBs are more common in younger children; this may be due to various factors, such as curiosity to explore orifices, imitation, boredom, playing, intellectual disabilities, insanity, and attention deficit hyperactivity disorder, along with the availability of the objects and absence of watchful caregivers. Adults may aspirate when alcohol, sedatives or head trauma alter their judgement or mental status, with cervicofacial trauma or when neurogenic disease or physical conditions, such as dentures, impair sensation or control of the food bolus.[2-7] 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. All the foreign bodies need to be removed as they cause acute and chronic complications.

Material and methods:

This observational study was conducted under the Department of ENT, Tertiary care centre , Dhule. Prior approval of Institutional Ethics Committee was taken before start of the study. A written signed informed consent was taken from all the patients prior to their enrolment in the study.

STUDY DESIGN:

Observational study

STUDY SITE:

Department of ENT, Tertiary care centre , Dhule

DURATION OF STUDY:

March 2020 - December 2022

STUDY POPULATION:

Patients with foreign body in the ear, nose or throat and meeting the inclusion and exclusion criteria.

Inclusion Criteria:

1. Patients of either gender.
2. Patients with history of otorrhoea, deafness or insertion of foreign body in ear.
    1. Patients with history of ingestion of foreign body or with history of dysphagia.
    2. Patients with history of aspiration or dyspnea or with history of stridor.
    3. Patients with history of aspiration or insertion of foreign body in the nose.
    4. Patients giving consent for taking part in the study.

Exclusion Criteria:

1. Patients with any other cause of ear discharge, stridor or dysphagia.
2. Patients who do not consent to participate in the study.

Table 1) Distribution of the study population according to the presence of symptoms

PARAMETER	N	%
EARACHE	49	49%
AURAL FULLNESS	40	40%
NASAL BLOCKAGE	27	27%
-FEVER	27	27%
EAR DISCHARGE	23	23%
RESPIRATORY DISTRESS	16	16%
DYSPHAGIA	14	14%
COUGH	14	14%
VOMITING	13	13%
NASAL DISCHARGE	13	13%
PRICKING SENSATION IN THROAT	13	13%
TINNITUS	12	12%
EPISTAXIS	12	12%
POOLING OF SALIVA	8	8%

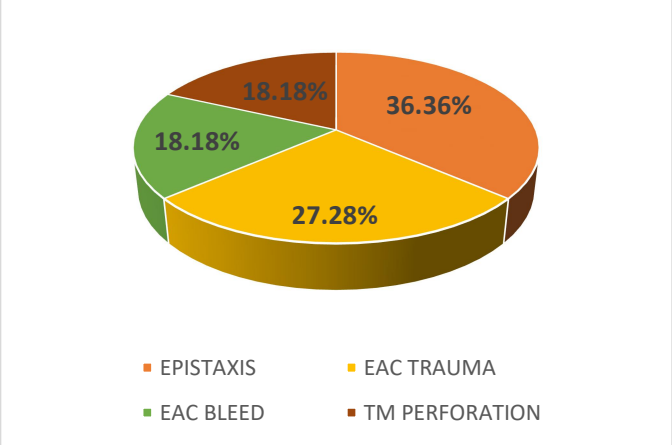
In the present study, it was observed that earache was the most common symptom present in 49% of the cases, followed by aural fullness in 40% of the cases. Other symptoms were nasal blockage (27%), fever (27%), ear discharge (23%) and respiratory distress (16%). Dysphagia (14%), cough (14%), vomiting (13%), nasal discharge (13%), pricking sensation in throat (13%), tinnitus (12%), epistaxis (12%) and pooling of saliva (8%) were present in less than 15% of the cases, each.

Table 3: Distribution of the study population according to the type of complication amongst the cases having complications

PARAMETER	N	%
EPISTAXIS	4	36.36%
EAC TRAUMA	3	27.28%
EAC BLEED	2	18.18%
TM PERFORATION	2	18.18%
TOTAL	11	100%

Table show the distribution of the study population according to the type of complication amongst the cases having complications. Epistaxis was the most common complication present in 36.36% of the cases.

Figure 1: Distribution of the study population according to the type of complication amongst the cases having complications



Discussion:

Foreign bodies in the nose, ears and the oropharynx are reason for frequent visits to otorhinolaryngology emergency units. According to the literature, foreign bodies are responsible, on average, for 11% of otorhinolaryngological emergencies.[67] It may cause increased morbidity and mortality. The major issues for this problem are accurate diagnosis, safe and early removal of foreign body without any complications. Therefore, the present study was conducted to evaluate the clinical profile of cases presenting with foreign bodies.[8,9]

The present study was conducted after obtaining approval from the ethics committee. A total of 100 patients were included in the study after obtaining written informed consent. Demographic details were recorded. Relevant past and personal histories were noted. Based on the symptoms, detailed examination ear/nose/throat examination was done. If the foreign body was not visualized, radiological evaluation was done. Then the removal of foreign body was attempted. Requirement of anaesthesia was noted. Complications, if any, were recorded. Patients were followed up at pre-defined intervals to watch for any complications.

In the present study, it was observed that earache was the most common symptom present in 49% of the cases, followed by aural fullness in 40% of the cases. Other symptoms were nasal blockage (27%), fever (27%), ear discharge (23%) and respiratory distress (16%). Dysphagia (14%), cough (14%), vomiting (13%), nasal discharge (13%), pricking sensation in throat (13%), tinnitus (12%), epistaxis (12%) and pooling of saliva (8%) were present in less than 15% of the cases, each. In the study by Gawarle S. H. et al[10], they observed that ear symptoms, like earache, ear discomfort and itching, were common symptoms in the cases with foreign body in the ear while nasal discharge and obstruction were common complaints of the nose cases. Similar spectrum of symptoms were observed in the study by Endican S. et al.[11]

Thus, it can be effectively concluded that aural symptoms are the most common. This is in agreement with the previous finding of ear being the most common site of foreign body impaction. In the present study, it was observed that general anesthesia was required in 21% of the cases while n79% of the cases did not require any anesthesia for removal. Removal of JH probe was the most common approach (72%) followed by oesophagoscopic removal (11%). Other approaches requiring removal with forceps (7%), syringing (7%),

bronchoscopic removal (2%) and post-auricular approach (1%) were required in less than 10% of the cases, each. In the study by Parajuli R.[12], they observed that 26.47% of the cases with foreign body required general anesthesia while in the rest 73.13% cases it was removed either with or without LA. Similar were the findings in the study by Rai S. J. et al.[13]

Conclusion:

Foreign bodies in ear, nose and throat are most commonly encountered in ENT Department. While foreign body impaction in children occurs due to their tendency to place objects in ear, nose and throat, the impaction in adults are a result of altered consciousness, sedation, alcoholism, etc. Early diagnosis and prompt removal of foreign bodies are important to prevent long term sequelae.

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