



“A STUDY SOCIODEMOGRAPHIC PROFILE OF CASE OF ENT FOREIGN BODIES IN CENTRAL INDIA”

ENT

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ABSTRACT

Early detection and treatment of foreign bodies is required to prevent complications.

OBJECTIVE: to study the epidemiological profile of patients of ent foreign bodies at tertiary hospital emergency care unit.

METHODOLOGY:

Methodology: a cross sectional retrospective historical cohort study was carried out from 1st January 2021 to 30th June 2021.

RESULTS: A total of 500 patients were studied out of which 50% were females, 50% were in the age group of 20-40 years, 50% were hindus and 80% were APL. Among the foreign bodies studied in the ear, 30% were cotton fragments and 25% were insects; in the nasal fossae, 20% were beans and 10% were sponge fragments; in the oropharynx, 70% were fish bones and 15% were chicken bones and in the larynx, 50% were chicken bones and 20% were fish bones.

CONCLUSION: Foreign bodies were more commonly seen in children and in ears. Complication rates and use of general anesthesia were low.

KEYWORDS

ENT foreign bodies

INTRODUCTION

Foreign bodies (FB) in the ears, nose or throat are a common occurrence in otorhinolaryngology (ENT) emergency services. Foreign bodies have been estimated to account for approximately 11% of the cases seen in ENT services (1-3). Severe complication may occur in as many as 22% of the cases - which speaks to the morbidity associated with foreign bodies; therefore, foreign bodies should be properly recognized, studied, and managed⁴.

Though FB removal is 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 (5,6). FB removal is often carried out in an operating room, with the patient under sedation or general anesthesia^(4,7). Delayed treatment has been correlated with larger and more severe lesions, in addition to more complications⁷. Hence this study was conducted with the aim to study the epidemiological profile of patients seen for foreign body (FB) at a tertiary hospital emergency care unit.

METHODOLOGY:

This cross-sectional retrospective historical cohort study was based on the data of the patients seen in the ENT emergency service of a tertiary university hospital during one calendar year from 1st January 2021 to 31st June 2021. The digital charts of patients seen for foreign bodies were used in data collection. The following data points were captured: date the patient was seen, age, gender, type and time for which the FB had been lodged, chosen clinical approach, complementary tests, complications and use of antibiotics, referral to other specialized services, and removal in an operating room. All the cases of FB seen at the ENT emergency unit were included. Patient charts in formats other than digital and charts with incomplete patient information were excluded. Patients were grouped based on the location of the FB: ears, nasal fossae, oropharynx, and larynx. Foreign bodies in the esophagus are not seen in the ENT service, but are relevant to the study as they are considered in the differential diagnosis. Therefore, they were also include in the study. This study was approved by the ethics committee of our institution.

RESULTS:

The ENT emergency unit saw 5000 cases within the period of time considered in the study. Foreign bodies accounted for 500 visits, or 10% of all cases. Patients had a mean age of 21.8 years and a median age of 8 years. of the 500 patients included in the study, 250 were females (50%) and 250 were males (50%), yielding a male-to female ratio of 1:1. 50% were in the age group of 20-40 years, 50% were hindus and 80% were APL (Table 1)

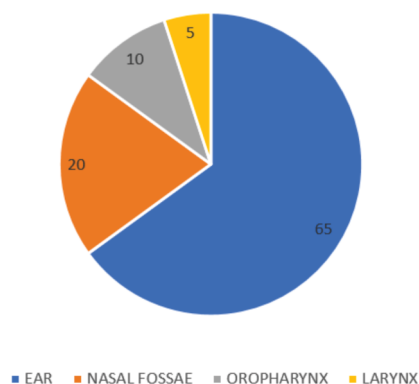
Table 1 showing socio-demographic characteristics of the study population:*

Characteristic	Number	Percentage
Gender:		
Male	250	50
Female	250	50
Age in years:		
0-20	100	20
20-40	250	50
40-60	100	20
60-80	50	10
Religion:		
Hindu	250	50
Muslim	125	25
Buddhist	100	20
others	25	5
APL/BPL		
BPL (Yellow ration card)	100	20
APL	400	80

They were mostly located in the ears (65%), followed by the nasal fossae (20%), the oropharynx (10%) and in the larynx (5%).

Figure 1 showing location of foreign bodies in ENT

PROPORTION OF FOREIGN BODIES



The most frequently performed tests were X-ray imaging and upper digestive endoscopy, in 75% and 25% of the cases, respectively. The type of FB varied depending on the site of occurrence. Cotton fragments were the most common type of FB found in the ears.

However, insects and beans were also frequently seen. Inanimate objects were the norm in the nasal fossae, with beans ranking atop all FB types. In the oropharynx and larynx, fish and chicken bones topped the list. Among the foreign bodies studied in the ear, 30% were cotton fragments and 25% were insects; in the nasal fossae, 20% were beans and 10% were sponge fragments; in the oropharynx, 70% were fish bones and 15% were chicken bones and in the larynx, 50% were chicken bones and 20% were fish bones.

(Table 2)

Table 2 showing the common foreign bodies and their locations.

Location	FB type	Percentage
Ear	Cotton fragments	30%
	Insects	25%
	Beans	10%
Nasal fossae	Beans	20%
	Sponge fragments	10%
Oropharynx	Plastic parts	10%
	Fish bones	70%
	Chicken bones	15%
Larynx	Chicken bones	50%
	Fish bones	20%

DISCUSSION:

This study considered the patients seen for FB in the ENT emergency unit of a tertiary university hospital for 6 consecutive months. The 500 cases of FB accounted for 10% of all patients seen in the ENT emergency unit. According to the literature, foreign bodies could account for as many as 11%(1-3) of the cases. Yet, the absolute number of patients seen for FB in one year was considerably greater, reflecting the number of cases included in our analysis(1,2,7). Foreign bodies were more prevalent in children, and 50% of the patients were aged 20-40 years. Male females were equal. These findings are in contradiction with the literature and reports of FB being more common in children around six years of age(1,4,7). According to some authors, foreign bodies are commonly seen in adults, particularly in individuals with special needs (8,9). ENT foreign bodies were the most common complaint reported by the patients seen in our center. Other authors reported similar rates of occurrence of ENT foreign bodies (6,10). This is explained, 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(1). Foreign bodies were mostly located in the ears (65%), followed by the nose (20%), and the oropharynx (10%), as similarly reported in the literature(3,10). Some authors suggested the following specific order of frequency and location of foreign bodies: ears, nose, pharynx, esophagus, and tracheal bronchial tree¹⁰. Complementary tests are rarely needed in FB patients. Direct visualization during physical examination is usually enough to identify and locate foreign bodies. In this study, 49 patients (7.84%) had to undergo complementary tests, and 69.4% of them had simple x-ray images taken. X-ray imaging may help identify radio-opaque foreign bodies, but it is not useful in the diagnosis of radiolucent objects such as fish and chicken bones. According to some authors, complementary tests should only be performed in patients suspected with foreign bodies when careful physical examination and nasal and laryngeal endoscopy failed to produce additional evidence(1,5). Foreign bodies have their social and geographic peculiarities. For example, cases involving cotton seeds and fragments are more commonly seen in developing countries. These were also the most commonly found objects in the ears and noses of the patients included in this study. Conversely, small plastic parts are the most frequent finding in developed countries(9,11). Nonetheless, one should not ignore the limitations of this retrospective study, conducted based on the digital charts of the patients seen in our service.

CONCLUSION:

Foreign bodies are a common occurrence in the practice of otorhinolaryngology. Most foreign bodies are found in patient ears, and young adults are the most affected age group.. The proper management of foreign bodies requires the aid of specialized physicians.

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