

Dynamics In The Trend Of Foreign Bodies In ENT Practice In Nigeria: Any Change?

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Abstract

Background: Foreign bodies in the ear, nose and throat still remains one of the commonest Otorhinolaryngological emergencies especially in children in our environment. The management calls for prompt and precise technique which has improved over time following the advances in technology. Methods: This is a cross sectional carried out from April 2009-March 2010 with the objective of evaluating the nature, and mode of presentations of patients with various types of foreign bodies seen at the Otorhinolaryngology (ENT) practice in Benin City, Nigeria. Results: A total of 132 cases of fb were recorded during the period under review. Comprising 70(53%) females and 62(47%) males with a female: male ratio of 1.1:1 with ages ranging from 3 months to 80 years. Sixty-six(50%) patients presented with foreign bodies in the ears, 40(30.3%) in the nasal cavities, 11(8.3%), 10(7.6%) and 4(3.0%) in the oesophagus, pharynx and larynx respectively. The commonest aural foreign body was bead in 25 (18.9%) patients, cotton bud in 22 (16.7%) and seeds in 15 (11.4%) patients. Sixty-six(50%) of the cases presented within 24 hours of insertion, while 54(40.9%) within 2-5 days and 10(7.6%) within the first 10 days. The complications encountered included epistaxis 6 (4.5%), ear bleed 5 (3.8%), tympanic membrane perforation 2 (1.5%) patients and death in 2 (1.5%) patients. CONCLUSION: Foreign bodies in the orifices remain a major concern in otolaryngological practice. Early detection and presentation to the specialist will reduce complications which are encountered commonly due to delay.

INTRODUCTION

Foreign bodies have long been a source of morbidity and mortality. Management calls for prompt and precise technique which has improved over time following widespread use of rigid and fiberoptic endoscopy.

They present great difficulties for both parents and medical practitioners in general and the otolaryngologists in particular. It may turn out uneventful or endanger the life of the patient depending on the type, size and location of the foreign body. Whatever the location, the most dreaded outcome of the event is seen when the foreign body is lodged in the air or food passages¹. When the victim is a child, then death may occur particularly if timely intervention is not available².

For the otorhinolaryngologist, they form the bulk of emergency services in the ear, nose, pharynx, larynx and the oesophagus². Although foreign bodies are found in adults who inadvertently acquire them, they are more prevalent in children who play with all sorts of toys and coloured objects provided by their parents and caregivers as pacifiers and beautifiers, the insane and edentulous and senile elderly.

Foreign bodies wherever they are found elicit public concern because of the grievous complications that trail them. Many studies have reported various complications of foreign bodies. There has been a report of oesophago-aortic perforation due to coin ingestion causing death³, other complications include tracheo-oesophageal fistula secondary to impacted plastic ear from a doll⁴, retropharyngeal abscess and chronic maxillary sinusitis secondary to foreign bodies^{5,6}.

Foreign body impaction continues to impose a heavy burden on the patients and otorhinolaryngologists but has not been audited in this environment. We describe a full year of cases in Benin City, Nigeria.

PATIENTS AND METHODS

This prospective study was conducted in the Department of Otorhinolaryngology of The University of Benin Teaching Hospital Benin City from March 2009 to February 2010.

Consecutive patients presenting with foreign body in the ear, nose or throat during this period were included in the study. Demographic data as well as mode of insertion, site, and duration of symptoms were obtained from the patient or the informant in the case of a child.

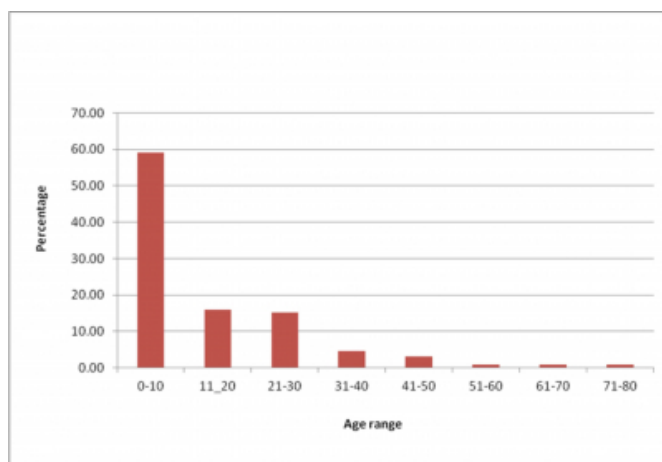
The type of foreign body and complications were documented after clinical examination and retrieval. Statistical data was analyzed using SPSS 16.0 and results were presented in tables and figures.

RESULTS

A total of 132 cases of foreign body insertion were encountered during the period under review. Of these, seventy (53%) were females and sixty two (47%) were males giving a female/male ratio of 1.1:1. Patients ranged in age from 3 months to 80years with the 0-10 year age group being the most commonly affected. (59.1%).

Figure 1

Figure 1: Shows the age range distribution of the patients.



The ears were the most common site of lodgement of foreign bodies. This occurred in 66 (50%) patients. For the aural foreign bodies, the right ear 45(34.1%) was a more common site. This was followed by the nasal cavities in 40(30.3%) patients, the right nasal cavity being the commoner site 26(19.7%) of insertion.

Figure 2

Table 1: shows sites of foreign bodies.

Site	Frequency	Percentage (%)
Right Ear	45	34.1
Left Ear	26	19.7
Right Nostril	21	15.9
Left Nostril	14	10.6
Oesophagus	11	8.3
Pharynx	10	7.6
Larynx	4	3.0
Bilateral Nose	1	0.08
Total	132	100

Beads were the type of aural foreign body in 25 (18.9%) of the patients. This was followed by cotton buds in 22 (16.7%) patients (Table 2).

Figure 3

Table 2: shows varieties of Foreign bodies.

Foreign body type	Frequency	Percent
Bead	25	18.9
Cotton bud	22	16.7
Seeds	15	11.4
Bone	13	9.8
Insect	9	6.8
Metallic	6	4.5
Plastic	6	4.5
Foam	6	4.5
Battery	5	3.8
Eraser	5	3.8
Denture	3	2.3
Cellophane	3	2.3
Stone	3	2.3
Biro Stump	2	1.5
Crayon	1	.8
Coin	1	.8
Candle Wax	1	.8
Magnet	1	.8
Match Stick	1	.8
Camphor	1	.8
Paper	1	.8
Chalk	1	.8
Button	1	.8
Total	132	100.0

Most patients were asymptomatic while others had various symptoms such as unilateral foul smelling nasal discharge, dysphagia, cough and drooling of saliva as well as ear blockage and discharge. Sixty-six (50%) of the cases

presented on the first day of lodgement, 54 (40.9%) within 2-5 days and 10 (7.6%) within the first 10 days.

The complications observed were epistaxis in 6 (4.5%) patients, bleeding from the ear in 5 (3.8 %) patients and 2(.01%) tympanic membrane and nasal septal perforations.

However there were 2 (1.5%) deaths due to laryngeal foreign bodies who presented late due to previous consultations with non otorhinolaryngologists. The complications were commoner in patients 19(14.4%) who had previous attempts at removal by caregivers, and non Otorhinolaryngologists.

Figure 4

Table 3: Shows the Complications of Foreign bodies.

complications	Frequency	Percentage
epistaxis	6	4.5
Ear bleeds	5	3.8
tracheostomy	2	1.5
Tympanic membrane perforation	2	1.5
death	2	1.5
Septal perforation	1	0.8
Pneumonitis	1	0.8
Retropharyngeal Abscess	2	1.5
Total	21	15.9

DISCUSSION

We described 132cases of otorhinolaryngological foreign bodies in Benin City. Foreign bodies were usually inadvertently acquired but some were acquired deliberately.^{1-3,6}. They were common among children and the mentally impaired.⁷ In this study we observed a higher incidence among children under 10 years. This is the experimental and inquisitive age, when children are mainly in the nursery and primary schools and are prone to rough plays. Many children in this age have oral exploratory behaviour and yet lack molar teeth and so easily swallow or inhale objects^{8,9}. This is consistent with studies done by other authors^{10,11} who observed that children less than 10 years were more prone to inserting foreign bodies into various orifices in the head and neck.

We observed a slight female preponderance unlike other studies where the males had a higher numerical strength^{10,11,12}. This suggests that females are as susceptible as the males to foreign body insertion in the orifices. They and their male counterparts are exposed to the same daycare and nursery schools thus giving them equal opportunity to

learn and play. The increased use of beads as hair accessories for the female child and the variety in the colours of these beads and toys make them more attractive to children.

A variety of foreign bodies both animate and inanimate, vegetative and non vegetative objects were seen. Studies have reported seeds, coins, and fishbone as the most prevalent foreign bodies^{10,12,13} but we found beads, cotton buds and seeds respectively as prevalent foreign bodies in our study. Beads are common, decorative, colourful, affordable and attractive and it is not unusual to see female children with hair decorated with beads of assorted colours.

This has become a public health issue because studies have shown that children make up to about 45% of Nigerian population and so there is increased use of toys among them. Also there has been increased use of beads among adults which may be dropped carelessly and make them accessible to children. Although their colours make them easily identifiable, they may remain lodged for a long time thereby causing a problem.

Cotton buds was the next prevalent foreign body type observed in this study. Unlike children, it was found mainly among young adults where they were used to give pleasurable scratching and cleaning of an itching ear and thus reducing the use of keys, feathers and sticks. They have also been made into small packs that are affordable but with poor quality which makes it easier for the cotton tip to dislodge during use thus causing panic and needing emergency attention. Also prevalent in this group was oropharyngeal foreign bodies ,mainly fish bone. This is a result of the fact that bony fish is common in our environment, improper preparation, chewing and hurried swallowing may contribute to the impaction of the bones in the oropharynx and eosophagus.¹³

Metallic coin used to be regarded as a common pharyngo-oesophageal foreign bodies in children according to previous reports but they have become remote as a result of its replacement with paper money; thus we rarely encountered coin in this study.^{14,15,16,17,18,19.}

Although there were more foreign bodies in the ears and nasal cavities, the right ears and nasal cavities were mostly affected .This is in keeping with the study by Hon SK et al, where they found more foreign bodies in the right ears and nasal cavities when compared to the left side¹². This finding is however at variance with that by Ogunleye and Sogebi who found more foreign bodies in the left¹⁰.

Clinical presentation vary according to the site, size, the type of foreign body, the length of time it has been in the site and the degree of obstruction. In this study foreign bodies in the aero digestive system presented with early symptoms than those of ear and nose which corroborates with previously documented study¹³. This is as a result of immediate symptoms of choking and drooling which their presence elicit. Pain and bleeding are seen in the ears when objects abraid the ear canal, rupture the tympanic membrane or due to attempt to remove them. Insects may also scratch the ear canal or perforate the tympanic membrane. With delay in presentation, erythema, swelling and foul-smelling discharge may occur. Button batteries may cause voltage burns and direct corrosive effects even within 48 hours, but some inanimate objects can remain for a long time without symptoms¹.

About 50% of the cases presented within the first day of incidence. This is in keeping with studies by Ogunleye and Sogebi in Ibadan, Okoye and Onotai where more than 50% of the patients presented within 24 hours^{10, 11}. Those who presented later than this were those who may be in watchful waiting, or trying elsewhere where the services were cheaper. It is important to note that majority of the cases presented with no symptoms, they were incidentally noticed or parents were informed by other children who were present at the time of insertion.

Complications of foreign body (FB) are not uncommon either as a result of their mere presence or secondary to manipulations to remove them. Complications reported in various literature include esophagoart perforations and death, tracheosophageal fistula, sinusitis and tympanic membrane perforation^{3,4,5}.

In this study, few complications were observed which ranged from minor epistaxis to tympanic membrane perforations due to previous attempts at removal. Nasal septal perforations were found in two cases, one with button battery and the other with long standing magnet in both nasal cavities.

There were two deaths due to late presentation of laryngeal foreign bodies. In one of the cases there was a metallic screw in between the vocal cords with resultant oedema and hypoxia. The second case had an organic foreign body with resultant lipoid pneumonitis and lung consolidation and died a month after the incident. This goes to emphasize the danger of laryngeal foreign bodies because of the space they occupy in the tracheobroncheal tree. This is consistent with

report by Figueiro et al which reported that late presentation and inexperience are major cause of complications¹⁴. Minor bleeding encountered were short lived and were due to manipulations.

In conclusion, foreign body impaction is a big burden in this environment and of great public concern. The most vulnerable group are children who find coloured beads attractive. The use of beads for hair decorations should be minimized. Also the use of cotton buds should be prohibited since they constitute a public health issue. There is need for more public enlightenment about the dangers inherent in foreign body insertion and attempts at their removal by untrained personnel.

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