Original Article

Examine the Prevalence of the Complications and Causes Associated With Foreign Body Patients

Complications and Causes With Foreign Body Patients

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ABSTRACT

Objective: The prevalence of complications related to foreign body patients.
Study Design: Cross sectional
Place and Duration of Study: This study was conducted at the Department of ENT, Bolan Medical College Hospital Quetta from June 2018 to December 2018.
Materials and Methods: A total of 205 patients both males and females of different age groups having foreign bodies in their external ear were included. Patients detailed history previous or current was examine. General anesthesia used to those having previous visualization and those who were uncooperative.
Results: There were 135 (65.85%) male patients and 70 (34.15%) were females. One hundred and fifteen (56.10%) patients were aged between less than 12 years, 60 (29.27%) patients were aged between 12 to 31 years and 30 (14.63%) patients had ages > 31 years. 62 (30.24%) patients had found bleeding, 41 (20%) patients had laceration, 5 (2.44%) patients had perforation and 97 (47.32%) patients had not found any complication. Cotton bud was the most frequent cause in foreign bodies' patients found in 41.95% patients.
Conclusion: The use of sticks and cotton bud was found to be the most frequent cause of foreign body's external ear. People use this method for cleaning their ears frequently but it is very harmful for external ear and can cause severe complications like bleeding and laceration as observed in this study. People should have to aware about this painful medical emergency.
Key Words: General anesthesia, External auditory canal, Foreign body, Complications, Causes

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INTRODUCTION

Foreign bodies in the ear are the otorhinolaryngological emergencies. 12% people visited ENT emergency because of foreign bodies. Rate of complication is high as 23 %. Many studies showed that most of the cases have foreign body in the external auditory ear.[1,2]

Foreign bodies (FB) in external auditory canal (EAC) commonly found in children and people age of >16 years.[3] Many of the cases found in children aged between 4 to 11 years than the children <4 years.[4,5] The objects causes the FB in the ear can be in the solid state like stone, buttons and many other inorganic objects or rather than inorganic like small piece of match sticks, cotton buds, small food particles, seeds, insects etc. However insects are the most frequent cause in patients aged of greater than ten years.[6] Beads, small pearls and cotton buds are the most common FB types that were observed in 30% incidences.[7] Problems/complications rate of FB in ear is high as haemorrhage 51.9% than the complications of tympanic membrane and laceration rate is 1%.[2] Most of the studies show that the rate of complication increases due to the abandoned attempt to extract the FB in the ear in the 1st attempt because patients having age <10 are uncooperative and make the treatment critical.[6]

The extraction of the harmful objects (foreign bodies) from the ear is the common procedure performed at the ENT Department. This procedure is very simple but sometime it acquired GA (general anesthesia) and extraction under operating microscope,[7] when the patient is uncooperative especially children or when the objects are found deeply in the ear, and these factors make the extraction procedure complicated.

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MATERIALS AND METHODS

This cross-sectional study was conducted at Department of ENT, Bolan Medical College Hospital Quetta from 1st June 2018 to 31st December 2108. A total of 205

patients both males and females of different age groups having foreign bodies in their external ear were included. Those patients having other ear problems such as wax in ear, otitis, fungus and those having previous failed extraction treatment and those who were not willing to participate in this study was excluded. Patients detailed history of age, gender, and complaint status and time duration having the foreign bodies in the ear was examine. Otoscopic observation had done to the included patients. GA (general anesthesia) used due to the abandoned attempt to extract the FB in the ear in the 1st attempt because some patients are uncooperative such as children and make the treatment critical. The statistical data was analyzed by SPSS 20.

RESULTS

There were 135 (65.85%) male patients and 70 (34.15%) were females**.** 115 (56.10%) patients were aged between less than 12 years, 60 (29.27%) patients were aged between 12 to 31 years and 30 (14.63%) patients had ages >31 years. Sixty two (30.24%) patients had found bleeding, 41 (20%) patients had laceration, 5 (2.44%) patients had perforation tympanic membrane and 97 (47.32%) patients had not found any complication (Table 1).

Table No.1: Demographic information of the patients

Variable	No.	%
Gender		
Male	135	65.85
Female	70	34.15
Age (years)		
< 11	115	56.10
12 – 31	60	29.27
> 31	30	14.63
Complication		
Hemorrhage/Bleeding	38	26.39
Laceration	20	13.89
Perforation TM	2	1.39
Not Found	84	58.33

Table No.2: Frequency of foreign bodies causes

Cause	No.	%
Cotton Bud	86	41.95
Beads	40	19.51
Small Grain/Seeds	30	14.63
Broken Sticks	14	6.82
Small stone/Pearls	12	5.85
Small Insects	10	4.87
Paper Piece	6	2.92
Button	4	1.95
Food Particle	3	1.46

Cotton bud was the most frequent type in foreign bodies found in 86 (41.95%), beads found in 40 (19.51%), small grains or seeds found in 30 (14.63%), broken match sticks found in 14 (6.83%) patients, small stone or pearls found in 12 (5.85%) patients, small insects found in 10 (4.87%) patients, paper pieces found in 6 (2.92%) patients, small buttons found in 4 (1.95%) patients, and 3 (1.46%) patient found food particle in their ears (Table 2).

DISCUSSION

Extraction of foreign bodies from the ear is the simple and common procedure performing at ENT Department, but it can be complicated especially in children due to multiple factors such as noncooperation of younger children, facilities available, experience of doctor, and object of foreign body.[11,12] Several unsuccessful attempts for removing the foreign body from the same year can damage the external canal and can cause the perforation of TM (tympanic membrane) and the object impacted deeply in the ear.[3] Foreign bodies objects mostly found in children.

Our study shows that mostly 115 (56.10%) patients had ages < 11 years. This result is less regarding age group as compared to the research of Thompson et al.[10] If we go through the other research of Fasnula et al[12] the estimated mean age was 10.9 Years but the age range was from two to fifty nine years.

In this study, maximum patients were found aged between 3 to 11 years and 11 is the point break differ from children and adults and this results shows similarity to the other studies.[4,5] However, many other research shows that the ages of 18 and 15 years is the point of differ between children and adults.[12,13]

In this study, we observed that male patient's rate was higher 65.85% than the female 34.15% patients and this is comparatively similar to the some other studies.[14] In our research we found complications or problems in patients such as Laceration, bleeding and perforation. We found 62 (30.24%) patients had found bleeding,41 (20%) patients had laceration, 5 (2.44%) patients had perforation tympanic membrane and 97 (47.32%) patients had not found any complication, these results showing approximately similarity to the some other studies.[15-17]

In Our study, we found cotton bud was the most frequent type in foreign bodies found in 86 (41.95%), this result was approximately same to the Shahid[18] and Abbas[14] et al, we found beads found in 40 (19.51%), small grains or seeds found in 30 (14.63%), broken match sticks found in 14 (6.83%) patients, small stone or pearls found in 12 (5.85%) patients, small insects found in 10 (4.88%) patients, paper pieces found in 5 (2.44%) patients, small buttons found in 4 (1.95%) patients, and 3 (1.46%) patient found food particle in their ears, and these results was different from the other studies, it may be due to the number of patients and environmental factors.[2,9,17,15] General anesthesia was given to 19 (9.26%) patients aged between 3 to 11 years because of noncooperation and severity of complication

in the EAC (external auditory canal) and this rate is higher than some other studies.[1214] In this study most of the patients had no complications associated with foreign bodies EAC (external auditory canal).

CONCLUSION

In this cross sectional study, we concluded that use of sticks and cotton bud was found to be the most frequent cause of foreign bodies external ear. People use this method for cleaning their ears frequently but it is very harmful for external ear and can cause severe complications like bleeding and laceration as observed in this study. People should have to aware about this painful medical emergency.

Author's Contribution:

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Conflict of Interest: The study has no conflict of interest to declare by any author.

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