VOLUME - 10, ISSUE - 08, AUGUST- 2021 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Alternational

**Original Research Paper** 

# FORIGEN BODY EAR IN GMC RAJOURI : OUR EXPERIENCE

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| ABSTRACT           | Backgrou<br>Majority a | <b>ind:</b> Ear forigen bodies are most common forigen body encountered in ent emergency or opd.           |

objects which can rapidly produce infection requiring emergency removal.

Aims and objectives : To determine the common types, age of presentation, sex predilection, dominant side, complications and mode of removal of such forigen bodies among patients seen in our hospital.

Material and methods: The study was conducted on 60 patients in ENT deptt in GMC Rajouri and AH over a period of 1 year from may 2019-april 2020.

**Results:** A total of 60 patients had forigen bodies in the ear, 33 (55%) were males and 27 (45%) were females. Out of 60 patients, 33(55%) had forigen body in right ear , 24 (40%) had forigen body in left ear and 3(5%) had bilateral forigen bodies. 21 (35%) cases fall in age group less than 10 years which is most common age group in our study. Insects (live + dead) account for 50% of cases. Rest 50% had, beads in 10 (16%), seeds in 6 (10%), Stone in 5 (8.3%), cotton in 2 (3.3%), paper, thread, battery cell, match stick, erasor, garlic metallic forigen body account for 1 case(1.6%) each. Syringing was done in 28 (46%), removal with instruments in 22 (36%) and combination with other methods in 10 cases. 84% of cases don't have any complication. Most common complication found was bleeding in 10 (16%) patients. Only 10% of cases required general anesthesia.

# **KEYWORDS** : Forigen body, ear, complication.

# INTRODUCTION

Forigen body refers to any object that is placed in ear that is not meant to be there and could cause harm without medical attention. Forigen body can be either in the canal or in the ear lobe. Objects usually found in the ear lobe are earings, either stuck in the lobe from infection or placed during insertion. Forigen body in the ear canal can be anything a child can put inside ear.

Where forigen bodies are more common in paediatric population, adults can also present. In adults insects in the external auditory canal are most common. Ear forigen bodies includes beads, insects, seeds, cotton, erasor, paper and popcorn kernel. The common symptoms are pain, discomfort, discharge or hearing impairment. The earliest age of presentation of an aural forigen body generally occurs around the age of 9 months, when child develops a pincer grip and become able to manipulate small objects (3). Mentally ill adults are also known to insert forigen body in the ear. In normal adults , impactation can result from desire to clean or scratch the ear canal (2). For parents, it is important that childrens may cause great harm to themselves or to other childrens by placing objects in the ear. Insects can fly, crawl or become trapped inside ear canal. This usually happens while sleeping on the floor or outdoors. This is often a frightening and dramatic event as the insects buzzing and movements are very loud and sometimes painful .Insects may die after entry in ear or remain alive which can cause fear and discomfort and needs urgent removal. Some objects placed in the ear may cause pain in ear, redness and drainage. Hearing may be affected by blockade of ear canal. Button batteries from watches or gadgets are particularly dangerous and need to be removed as soon as possible as they may leak chemicals that can burn or severely damage the ear canal or ear drum even with in a hour.

Diagnosis is delayed because of non specific syptoms. Mentally ill adults are also at increased risk. Removal of forigen bodies depends on location, type of forigen body and age of patient. The key to successful removal are adequate vision using appropriate instrument, cooperation of patient, and a skill of the doctor (4). First attempt at removal is important as complication rate increases with number of attempts because of canal edema and trauma. Multiple forigen bodies are not uncommon in childrens.

# MATERIAL AND METHOD:

This study was conducted in the Department of ENT, Head and Neck Surgery in GMC Rajouri and AH. This study includes patients with ear forigen bodies presenting in ent (emergency or opd). Duration was 1 year from may 2019 to april 2020. Otoscopic examination with otoscope or with oto endoscope were performed to diagnose forigen body of ear. Instruments ( alligator forcep, Jobson Horne probe, Hartmann forcep) were used in removal of forigen body from ear. Syringing with cannula fitted with 50 ml syringe were also used during forigen body removal.

# OBSERVATIONS

Table 1: Sex predilection in ear forigen bodies.

| Sex    | Number of patients |
|--------|--------------------|
| Male   | 33 ( 55%)          |
| Female | 27 ( 45%)          |
| Total  | 60                 |

Table 2: Side distribution of ear forigen bodies.

| Side      | Number of patients |
|-----------|--------------------|
| Right     | 33 ( 55%)          |
| Left      | 24 ( 40%)          |
| Bilateral | 3 ( 5%)            |
| Total     | 60                 |

 Table 3: Frequency of ear forigen bodies in different age groups.

| Age group of patients ( in years) | No. of patients |
|-----------------------------------|-----------------|
| 0 - 10                            | 21 ( 35%)       |
| 10 - 20                           | 7 ( 11.66%)     |
| 20 -30                            | 6 ( 10%)        |
| 30-40                             | 12 ( 20%)       |
| 40- 50                            | 7 (11.66%)      |
| 50-60                             | 5 ( 8.33%)      |
| 60-70                             | 1 ( 1.66%)      |

| 70-80 | 1 ( 1.66%) |
|-------|------------|
| Total | 60         |

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| Table 4: Different types of ear forigen bodies |                    |  |
|--|--------------------|--|
| Type of forigen body                           | Number of patients |  |
| Insect ( dead+ alive )                         | 30 ( 22+8) = 50%   |  |
| Bead   | 10 ( 16 % )        |  |
| Seed   | 6(10%)             |  |
| Stone  | 5 ( 8.3 %)         |  |
| Cotton   | 2 ( 8.3 %)         |  |
| Paper  | 1 (1.6%)           |  |
| Metalic ball                                   | 1 ( 1.6 %)         |  |
| Thread   | 1 ( 1.6 %)         |  |
| Match stick (ant end)                          | 1 ( 1.6 %)         |  |
| Battery cell                                   | 1 ( 1.6%)          |  |
| Erasor   | 1 ( 1.6%)          |  |
| Garlic   | 1 ( 1.6 %)         |  |
| Total  | 60 ( 100%)         |  |

 Table 5: Different methods of removal of ear forigen bodies alone or in combination.

| Method of removal                | No. of patients |
|----------------------------------|-----------------|
| Syringing alone                  | 28 ( 46.66% )   |
| Using instruments (Jobson Probe, | 22( 36.66% )    |
| alligator, Hartmann forcep,      |                 |
| granulation forcep)              |                 |
| Syringing + Hartmann forcep      | 2 ( 3.33%)      |
| Suctioning + Syringing + removal | 8 ( 13.33%)     |
| using alligator forcep           |                 |
| Total                            | 60              |

Table 6: Type of anesthesia used in patients of forigen body ear.

| Type of anesthesia       | No. of patients |
|--------------------------|-----------------|
| Without anesthesia       | 54 ( 90% ).     |
| Under general anesthesia | 6(10%)          |
| Total                    | 60              |

Table7: Complications after removal of ear forigen body.

| Type of complications | No. of patients |
|-----------------------|-----------------|
| Bleeding              | 10 (16.66%)     |
| No complication       | 50 (83.33%)     |
| Total                 | 60              |

### RESULTS

During the study period, a total of 60 patients presented to the hospital with forigen body in the ear. Our patient includes 33 (55%) males and 27 (45%) females. The age of patients ranged between 2 to 80 years. The male to female ratio was 1.2. Most common 21 (35%) patients are in the paediatric age group < 10 years followed by 12 (20%) patients in the adult age group of 30-40 years. Of these 60 patients, 30 cases harboured animate (living) forigen bodies . Out of these 30 cases (50%), 8 had live insects and 22 were dead. The rest 30 (50%) patients had inanimate (non-living) forigen bodies in their ears.

Out of these 30 cases of non living forigen bodies, 7 were vegetative in the form of seed, rice grain, wheat grain, garlic and grams. The remaining were of non-vegetative forigen body in the form of beads, stone, metallic part of toy, erasor, thread, broken match stick and battery cell. Out of 60 cases of ear forigen bodies , 54 (90%) were removed in the opd and emergency room and only 6 (10%) required removal under general anesthesia. All patients requiring general anesthesia were younger than 10 years of age. All of the forigen bodies were removed successfully either in the opd, emergency or operation theater by syringing, instrumentation and suction (alone or in combination). Syringing was effective in 28 (46.66%) cases, Instrumentation in 22 cases (Jobson horn probe-9, Alligator-8, Hartmann forcep-4, granulation forcep-1) and rest 10 removed in combination. 50 (83.33%) patients

didnot had any complication. Most common complication was bleeding in 10 (16.66%) patients.



**Picture 1:** Showing different types of forigen bodies.a) bead, b) cotton, c) metallic bead, d) insect, e) seed, f) pearl.



**Picture 2:** Showing live insect coming out from ear after syringing.



**Picture 3:** Showing instruments used for removal of ear forigen body (50 ml syringe with cannula, alligator forcep, jobson horne probe, hartmann forcep and granulation forcep).

### DISCUSSION

Adults and older children usually give a history of insertion of forigen body in ear, but younger children and mental, psychiatric patients are brought to the hospital by their parents or guardians. Forigen bodies may vary widely in shape, size, and composition, and the symptoms may range from asymptomatic to mild symptomatic case like ear blockade(7). In our study, the most common age group affected was less than 10 years and includes 21 (35%)patients, which is same that of study of Nasrat A, where it is 25.5% (1). We believe that children in this group are more curious about their bodies and interesting objects. The ear was the most common site for forigen bodies in young children, who not only put objects in their ears but also in the ears of their siblings and friends (7). In our study, the right ear 55% was more often affected than left which is similar to study of Olajide, where it is 57.7% (6). It can be explained by the fact that most of the forigen bodies were inserted by patients themselves, and most of these patients were right handed (2, 5). The types of aural forigen bodies found in our study are similar to study of Ahmad and Olajide (1,6). We found one case of battery impactation in our study, which can be serious if they remain in the ear for a prolonged time as they release alkaline substances that can cause liquefactive necrosis of the canal wall and surrounding tissue (3). A high incidence of living forigen body (ticks) in our study is explained by the fact that people in near by villages who come with live insect in their ear graze cattles and cattle sheds are inside their homes and also have habit of sleeping on ground or when they go to jungles to collect fodder and put the fodder over their head. We found 2 cases of cotton swab in ear in our study that may be because of overuse of cotton Q-tips to clean the ear in order to remove wax or to relieve itching in the ear. Anesthesia ( general) was needed in 10% of children which resemble study of Olajide et al where it is 8.1% (6). Anesthesia was required in patients who were not cooperative. Method used for removal depends on the location, shape, composition of each case. For example, non -impacted non- hygroscopic objects can be syringed with normal saline at body temperature. Live insects must be killed first with any oil or ear drops followed by syringing or instrumentation. Syringing in 28 (46%) patients led to successful removal of most of the nonhygroscopic forigen bodies in our study. Most of the cases i.e 84% in our study did not develop any complication which is same that of study of Ahmad where it is 87.5% (1). The main complications encountered in our study was canal abrasion, canal laceration which caused bleeding. The reason behind complications in our study were mostly either because of injury caused by live insects or during removal where the child was not stable.

#### CONCLUSION

In india patients are not easily accessible to seek care directly from an ent specialist and land to a general duty doctor. Proper light, instrumentation and expertise is needed for the successful removal. Complications can be avoided if patient is directly referred to a otolaryngologist. We should train our general duty doctor and to provide greater availability of instruments, which allow them to deal and determine cases which need referral to otolaryngologist.

Parents or guardians should not allow children to play with small objects to prevent lodgment of forigen body. Greater public education and public awareness regarding prevention and treatment would be very helpful, and we urge the leaders of our local heathcare communities to undertake such an effort.

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