



# Study on Clinical Presentation of Ear and Nose Foreign Bodies In a Peripheral Health Facility

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**Abstract:** Ear and nose foreign bodies are routine problems affecting mainly children but adults are not an exception. A prospective study involving 50 patients is undertaken concentrating on presentation of patients with various types of ear or nasal foreign bodies. Usually nasal foreign bodies does not cause serious complications but rarely intracranial complications may occur. Similarly mastoiditis may occur rarely in sequel to impacted ear foreign body. As an E.N.T. surgeon we should always have high suspicion considering presence of foreign bodies even in the absence of appropriate clinical signs and symptoms suggestive of a foreign body in ear or nose.

**Index Terms** - Foreign bodies · Ear and nose · Fungal invasion · Vascular thrombosis · Mastoiditis

## I. INTRODUCTION

A patient presenting with a foreign body in ear or nose is a routine scenario in otolaryngology department. Except for the threat of being aspirated and becoming a foreign body of lower airways and thus causing airway obstruction a foreign body of nose is a condition which can easily be managed when detected early. If ignored beyond few days a patient with a foreign body in nose presents with unilateral foul smelling nasal discharge and Nasal obstruction

Children are commonly affected by nasal foreign bodies whereas foreign bodies in ear were common even in adults. An aural foreign body is asymptomatic usually but can involve damage to tympanic membrane or middle ear by itself or by improper management (iatrogenic) during removal. The etiology of foreign bodies in nose or ear has been associated to general curiosity and a desire to explore orifices in children, accidental entry of foreign body, preexisting disease in ear causing irritation, habitual cleaning of ear and nose with object like ear buds, and also due to persisting itching in ears due to preexisting disease of ear [1, 2]. Foreign bodies in ear or nose can be classified in many ways like organic-inorganic, animate-inanimate, metallic-nonmetallic, hygroscopic-non hygroscopic, regular or irregular, soft or hard etc., according to their nature [3]. The method of removal usually depends on the position of foreign body, type of foreign body, and cooperation of the patient with a foreign body [4, 5]. Frequent occurrence of unusual presentation and complications has made us to take up a study on foreign bodies in ear and nose

## Materials and method

A prospective study involving 50 patients presenting to peripheral institutes CH Nagrota Bagwan and Jwalamukhi over a period of 8 months is undertaken concentrating on presentation of patients with various types of ear or nasal foreign bodies. All patients with suggestive history of foreign body entry into ear or nose as well as those patients with no suggestive history but were found to have the foreign bodies are also included in the study. Patients with complications arising out of foreign bodies whose extraction is done at a different centre or hospital were excluded.

## Discussion

Of the 50 patients 36 were having nasal foreign body (NFB) and 14 were having ear foreign body (EFB). There is no gender predilection observed in our study either for nose or ear foreign body. Two of NFB patients were having bilateral foreign bodies. Whereas rest of the patients had either unilateral nasal or ear foreign body.

In our study NFB is limited to children less than 12 years and 1–5 year age group of patients were more commonly affected than the others (Chart 1). In 24 patients with NFB, the foreign body is in the anterior nasal cavity along the floor between the inferior turbinate and septum corresponding to nasal valve area. Other sites were posterior third of nasal cavity (8 patients) and in front of middle turbinate (4 patients).

Many patients (14 patients) with NFB were asymptomatic when presented to hospital less than few hours after entry of foreign body (Table 1). Those who present after 4 days of entry tended to have unilateral foul smelling nasal discharge (7 patients). Blood stained discharge or frank bleeding was usually seen in patients who were attempted for removal of foreign body at a different centre or at home. Vestibulitis of nose was seen in 5 patients. Patients with vegetable hygroscopic foreign bodies like grams (6 patients), peas (5 patients), tamarind seeds (4 patients), corn piece (2 patients), pea nut (2 patients) predominated in our study on NFB. Usually investigations are not necessary for removal of NFB unless they are planned under general anesthesia. None of our patients with foreign body in nose required general anesthesia for removal. The extraction of NFB is achieved by a eustachian catheter with or without endoscopic guidance. Some of the techniques described in literature like usage of balloon catheter, nasal positive pressure were not utilized in our study [2, 7, 8]. The findings regarding presentation of NFB coincided with the available literature except for few unusual presentations or complications described in the following case

report extracts from our study.

Unlike NFB, most of patients with EFB were not children but adults (Chart 2). The entry of EFB took place either accidentally, was self inserted in some by children or playfully inserted by others. Adults who were having preexisting otitis externa have a habit of cleaning the ear with ear buds and landed with broken heads of cotton buds and even broken heads of match sticks [1]. Insects were extracted in three of the patients, out of whom two were live insects which have entered ear canal during night as they were asleep. Even maggots were seen in one elderly patient with acute suppurative otitis media who was bedridden with paralysis. Six out of fourteen of patients with EFB were asymptomatic (Table 1). Itching and tinnitus in the ear is associated with patients who had coexistent otomycosis developed over swollen vegetable or hygroscopic foreign bodies like beans, grams etc. In our study three patients did not even know they have a foreign body until they were told by treating doctor. Frank bleeding from ear was seen in one patient because of forceful entry of a metallic foreign body (nail). In majority of patients, except those having a hygroscopic foreign body, aural syringing was very effective in removing EFB along with tillery's forceps. Suction and extraction with a forceps or hook are also used in our study. In two patients who presented late had edematous ear canal with impacted foreign body patients were referred to higher centre as facility of general anaesthesia was not present.

Nasal foreign body—total 36 Symptom—number <sup>a</sup> (%*)	Ear foreign body—total 14 Symptom—number <sup>a</sup> (%*)
Asymptomatic—14 (38) Nasal block—5 (14) Nasal irritation—11 (30) Unilateral foul smelling nasal discharge—7 (19) Nasal discharge non foul smelling—6 (17) Sneezing—2 (5) Foreign body sensation—5 (36) Pain—6 (17)	Asymptomatic—6 (43) Ear pain—3 (21) Ear discharge—1 (7) Ear bleeding—1 (7) Decreased hearing—7 (50) Ear itching—4 (36) Blood stained discharge—5 (14) Tinnitus—0 (0)

Table 1 Presenting symptoms of NFB and EFB

\*indicates that percentages do not add to 100 as they are rounded. <sup>a</sup> indicates that the number do not add equal to total number of patients as some may have multiple symptoms

Also we felt the impaction of foreign body in middle ear and ensuing inflammation could have been avoided if the patient were to be treated initially by a trained medical person [11].

## Conclusion

The presentation of NFB can be asymptomatic in patients presenting early and nasal irritation followed by nasal discharge is the most common presenting complaint in delayed presentations. Presence of a foreign body in nose should be considered even in patients who have nasal symptoms associated with intracranial complications or a condition mimicking granulomatous disease of nose. Most patients with EFB are asymptomatic but presence of it should be considered with patients having acute inflammatory signs in ear or mastoid and a thorough history taking is necessary. Otoscopic examination is must in such patients.

Conflict of interest None.

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