

An Unusual Foreign Body in the Ear of an Elderly Nigerian Patient

Sogebi OA¹, Oloko MA², Adebajo AO², Anifowose OT²

¹Department of Surgery, College of Health Sciences, Olabisi Onabanjo University, Sagamu, Nigeria.

²Department of Family Medicine, State Hospital, Abeokuta, Nigeria.

ABSTRACT

This was a case of an incidental finding of an unusual foreign body in the right ear of an elderly Nigerian patient. The mode of presentation, the manner of discovery and how it was managed successfully were highlighted. We reported this case to create awareness, and encourage physicians to always observe effluents obtained from irrigation of body cavities for confirmation of diagnosis and documentation.

KEY WORDS: Ear syringing, elderly, foreign body, locust bean

Date Accepted for publication: 9th July, 2013

NigerJMed 2013; 239-241

Copyright©2013. Nigerian Journal of Medicine

INTRODUCTION

Foreign body (FB) in the ear is often encountered by primary care givers, emergency department physicians, paediatricians and otolaryngologists worldwide. It is commonly seen in children but not uncommon in the adult population. This apparently simple issue could lead to significant morbidity and may be costly to manage if it is not appropriately treated from the onset. Children frequently present with foreign body in the ear such as seeds, beads, small part of toys, paper and cloths. Common foreign body among adults includes cotton buds, feathers, strips of paper. Unusual foreign body insertion had been reported in adults with mental retardation and elderly individuals with dementia.

Foreign body in the ear usually presents asymptotically but those that have impacted in the external auditory canal (EAC) can manifest with earache, and have other symptoms such as ear discharge, tinnitus and hearing loss. Live insert in the ear presents as an emergency. Appropriate management usually leads to good outcome but inadequate or inappropriate treatment leads to complications such as meatal laceration, tympanic membrane perforation, otitis externa and media, hearing loss and edema of the ear canal.¹

African locust bean (*Parkia biglobosa*) is a vegetable seed extracted from the carob tree, which is mostly found in the South-western part of Nigeria. This bean is most commonly used in its traditional fermentation form as food condiment (*iru/dawadawa*), which adds protein to a protein-poor diet, and also serves as medicine in this region.² Although two cases of bean sprout impaction in the pharynx was reported, we did not find any case of

locust bean seed insertion into the ear from literature search.³

We present this case of an unusual otic FB in an elderly Nigerian patient who appeared otherwise normal neurologically and psychologically. The patient consented to the reporting of this case. It is aimed at creating awareness about an unusual foreign body in the ear, as well as discussing its presentation and management.

CASE REPORT

A.S. was an 80-year-old woman who has retired from textile trading. She presented with 3 weeks history of continuous noise in the right ear with associated otalgia, and hearing loss but no otorrhoea nor vertigo. Patient denied history of trauma and insertion of a foreign body into the ear. However, she had the habit of cleaning her ears with cotton buds. She was a known hypertensive patient on Normoretic and Aldomet.

Examination revealed a healthy-looking elderly woman, not pale, afebrile, fully conscious and alert, well oriented in time, place and person. Otoscopic findings revealed bilateral normal pinnae, right external auditory canal was filled with brownish/black substance preventing visualization of the right tympanic membrane. Left external auditory canal was patent and the tympanic membrane was intact but dull. Tuning fork tests (Rinne and Weber) revealed evidence of right sided conductive hearing loss. The throat, head and neck examinations were essentially normal.

Her pulse rate was 86beats/minute, Blood pressure was 180/100mmHg, first and second heart sounds were heard, no murmur. A clinical impression of right sided cerumen impaction in an elderly woman was made. She was advised to apply olive oil into the right ear for one week and scheduled for right ear syringing.

Right ear syringing revealed wax and two discrete seed-like materials syringed from the right ear as effluents. More cursory examination of the effluent showed that the seed-like materials were locust beans (see picture). Re examination post-syringing revealed a patent external auditory canal and an intact tympanic membrane.



DISCUSSION

The external ear, specifically the external auditory canal (EAC) is the most common region in the craniofacial orifices where foreign bodies are lodged.^{4,5} Although more common in children particularly under the age of 10 years, FB impaction in the EAC occurs in adults and the elderly.

Many cases of adults FB impaction occurs accidentally in the bid to clean or scratch their EACs. However cases of deliberate insertion of object into the ear have been reported in adults with mental or emotional derangement and elderly patients with dementia.⁶ Our patient was an elderly woman who appeared psychiatrically sound, emotionally stable and did not have any features to suggest dementia making this finding rather curious. She also denied ever inserting any object into her ear but affirmed that she often used locust beans to prepare soup. A possible mechanism for this insertion might be an unintentional smearing of the ear orifice with bean seed-laden fingers, which was inadvertently pushed into the canal with a cotton bud in her attempt to clean the ear.

The patient presented with right sided tinnitus, otalgia and hearing loss. These symptoms are common symptoms of impacted cerumen.⁷ Tinnitus and hearing loss could likewise be due to presbycusis in which the symptoms would be bilateral and hearing loss sensorineural rather than conductive in type.⁸ Tinnitus can also be part of symptomatology of uncontrolled

hypertension which was discovered in our patient. However in hypertension, tinnitus usually occurs intermittently and often bilateral. Hearing loss could be a complication from failed previous attempt at removal of FB particularly by untrained personnel, but our patient denied this. It is usual for long standing FBs in the external auditory canal to be covered by wax.⁹ This appearance masks the pathology and makes diagnosis difficult because it prevents adequate and thorough visualization of the canal and the tympanic membrane. Thus an initial diagnosis of impacted wax was made in this patient. The wax had practically enveloped the foreign body.

Various options including physical, chemical or combination methods exist for managing impacted wax.^{7,8} Chemical means involve use of different types of cerumenolytic (wax softening) agents. However cerumen may not soften or disintegrate completely with chemicals thus necessitating manual removal. In physical extraction, wax is mechanically removed by the use of instruments like wax hook, cup or scoop, or flushed out by ear syringing. Ear syringing is efficient, easy to perform and less traumatic on the patient. It can also be used to extract non-vegetative FBs from the EAC.¹⁰ The combination methods employed in our patient involved instillation of olive oil as a (chemical) wax softener and subsequently (physical) ear syringing and it was successful. Physicians are enjoined to always observe effluents from ear syringing or from any other medical procedure for confirmation of diagnosis and documentation. This practice led to the discovery of the foreign body in our patient.

For the purposes of management, objects inserted into the ear have grossly been classified as vegetative or non-vegetative FBs. Vegetative FBs have the ability to imbibe water and swell and are therefore not normally extracted by syringing. In our patient, the FB though a seed and vegetative in nature, had undergone the process of fermentation and was enveloped in oily wax hence the mechanical effect of the irrigation flushed it out.

In conclusion, we have presented an unusual foreign body in the right ear of an apparently normal elderly woman, highlighted the mode of presentation and its successful management.

REFERENCES

1. Olajide TG, Ologe FE, Arigbede OO. Management of foreign bodies in the ear: a retrospective review of 123 cases in Nigeria, *Ear Nose Throat J.* 2011; 90(11):E16-9.
2. Ijarotimi OS, Keshinro OO. Comparison between the amino acid, fatty acid, mineral and nutritional quality of raw, germinated and fermented African locust bean (*Parkia biglobosa*) flour. *Acta Sci Pol Technol Aliment.* 2012; 11(2):151-65.

3. Mendis D, Thorne S. Bean sprout impaction in the pharynx: two cases of this unusual foreign body. *Ear Nose Throat J.* 2009;88(9):E14-6.
4. Iseh KR, Yahaya M. Ear foreign bodies: Observations on the clinical profile in Sokoto, Nigeria. *Ann Afr Med* 2008; 7(1):18-25.
5. Figueiredo RR, Azevedo AA, Kós AO, Tomita S. Complications of Ear Nose and Throat foreign bodies: a retrospective study. *Braz J Otorhinolaryngol.* 2008; 74(1):7-15.
6. Arora S, Goyal SK. Unusual foreign body in the ear in an adult patient with psychiatric illness. *Indian J Psychiatry.* 2009; 51(2):164.
7. Roland PS, Smith TL, Schwartz SR, Rosenfeld RM, Ballacha B, Earll JM, Fayad J, Harlor Jr AD, Hirsch BE, Jones SS, Krouse HJ, Magit A, Nelson C, Stutz DR, Wetmore S. Clinical practice guideline: Cerumen impaction. *Otolaryngol Head Neck Surg.* 2008; 139: S1-S21.
8. Oron Y, Zwecker-Lazar I, Levy D, Kreitler S, Roth Y. Cerumen removal: Comparison of cerumenolytic agents and effect on cognition among the elderly. *Archives of gerontology and geriatrics.* 2011; 52:228-232.
9. Fei-Peng Lee. Pigmented nevus of the external auditory canal, *Otolaryngol Head Neck Surg.* 2006;135:124-128.
10. Heim SW, Maughan KL. Foreign bodies in the Ear, Nose, and Throat. *Am Fam Physician.* 2007; 76(8):1185-9.