



Unusual Oesophageal Foreign Bodies in a Young Man with Mental Retardation: A Case Study

Stanley B. Amutta^{1*}, Mohammed Abdullahi¹, Daniel J. Aliyu¹, Lawal Shuaibu¹ and Kareem Mukaila¹

¹*Department of ENT, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria.*

Authors' contributions

This work was carried out in collaboration between all authors. Author SBA designed the study, wrote the protocol and wrote the first draft of the manuscript. Authors MA and DJA managed the analyses of the study. Authors LS and KM managed the literature searches. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJMAH/2018/41442

Editor(s):

(1) Janvier Gasana, Professor, Department of Environmental & Occupational Health, EO Epidemiology and EO Medicine, Robert Stempel College of Public Health & Social Work, Florida International University, USA.

Reviewers:

(1) L. O. Onotai, University of Port Harcourt, Nigeria.

(2) Enrico Maria Amadei, Infermi Hospital, Italy.

(3) Bernadette Ngo Nonga, University of Yaoundé I, Cameroon.

Complete Peer review History: <http://www.sciencedomain.org/review-history/24581>

Case Study

Received 27th February 2018

Accepted 6th May 2018

Published 11th May 2018

ABSTRACT

Background: Oesophageal foreign bodies are common in the ear, nose and throat practice. Unlike children, the occurrence in adults is due to accidental or deliberate self-harm. Delay in oesophageal foreign body retrieval could lead to unpleasant complications.

Aims: To highlight the occurrence of multiple and diverse oesophageal foreign bodies in a man with mental retardation.

Case Report: An 18-year-old man with background history of congenital mental retardation, deaf and dumb was brought to the out-patient clinic of the ENT Department, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria. The presenting complaints were 7-days history of inability to take both fluid and solid diets, excessive salivation and progressive body weakness. The presence of the oesophageal foreign body was confirmed by chest x-ray. Had emergency rigid oesophagoscopy and foreign body removal of the impacted multiple stones and grasses. The patient was discharged home after seven days on admission and follow-up visits were uneventful.

*Corresponding author: E-mail: samutta14@gmail.com;

Conclusion: A case of multiple, unusual and diverse oesophageal foreign body in a young man with background mental retardation. He had a satisfactory outcome with rigid therapeutic oesophagoscopy under general anaesthesia, despite, the delayed presentation.

Keywords: Multiple; diverse; oesophageal foreign body.

1. INTRODUCTION

Oesophageal foreign bodies are common in the Ear, Nose and Throat (ENT) practice, and their occurrence is higher in children than adult [1-4]. The reasons for foreign body ingestion in children have been attributed to curiosity, imitation, boredom, irritation, fun making and the wish to explore the orifices of the body [1-4]. Comparatively, in adults, foreign body ingestion could be accidental, and this is usually food related [1,3,5,6] and edentulous patients with denture [7]. Deliberate self-harm in individuals with psychiatric disorders [8], and an occupational hazard in Magicians [1,9]. Oesophageal foreign body impaction can lead to challenging complications like inability to eat, drooling of saliva, aspiration pneumonitis, oesophageal perforation and mediastinitis [4].

We report a case of multiple and diverse foreign bodies impacted in the thoracic oesophagus of an 18-year old Nigerian man with background deafness, dumb and mental retardation.

2. CASE REPORT

An 18-year-old man with background history of congenital mental retardation, deaf and dumb was brought to the out-patient clinic of the ENT Department, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria. The presenting complaints were 7-days history of inability to take both fluid and solid diets, excessive salivation and progressive body weakness. We could not obtain direct history from the patient because of his disabilities. The informant was the patient's elder brother.

There were no histories of vomiting, difficulty in breathing, cough, fever, aggressive behaviour and convulsion. However, there was a positive past history of ingestion of paper and grasses. His parents observed the abnormal ingestion of none-food substances, inability to hear and talk from childhood. He was reportedly reviewed by a Psychiatrist and placed on some medications. The informant does not know the name of the drugs and patient defaulted on psychiatric follow-up because there was no improvement in medication.

Examination revealed an acutely ill-looking young man, drooling saliva, appeared weak and dehydrated. His vital signs were within normal limit except the pulse rate that was 96/minute. Hearing assessment by distraction test was negative. Pure tone audiometry was difficult. Otoacoustic emission and evoked response audiometry are unavailable in our hospital. Moreover, Nasal, oropharyngeal, chest and abdominal examinations were unremarkable.

We made a provisional diagnosis of the impacted foreign body in the oesophagus. X-ray soft tissue neck and Chest X-ray anterior-posterior and lateral views showed a clump like opacity of density greater than the bones and projected over the superior mediastinum (T4/T5 region) in the prevertebral area, and not in the air column. Thus, most likely in the oesophagus (Figs. 1 and 2).



Fig. 1. Clump like radio-opaque object in the upper thorax (Anterior posterior chest radiograph including the neck region) shown by black arrow

Full blood count, serum electrolytes, urea and creatinine were within normal range.



Fig. 2. The radio-opaque object in the prevertebral area in the lateral Chest radiograph shown by black arrow

to be re-passed. The antibiotics were changed to oral and administered for another five days.

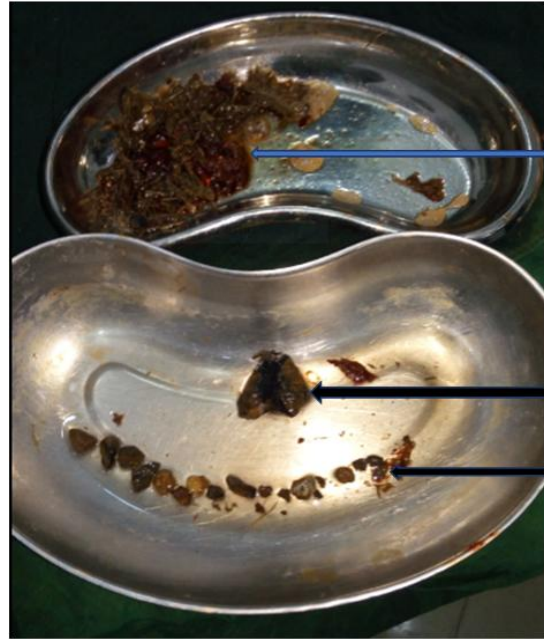


Fig. 3. Grasses (blue arrow) and pieces of stone (black arrows) retrieved from the oesophagus

The patient was rehydrated with normal saline 2-litres in 2-hours, Commenced on Intravenous metronidazole 500 mg and Amoxicillin 500 mg. This was followed by emergency rigid oesophagoscopy under general anaesthesia via endotracheal intubation. The operative findings were a mixture of grasses and sixteen small pieces of stones at 24.0 cm from the upper incisor teeth (Fig. 3). They were retrieved with a foreign body grasping forceps. The oesophagoscope was re-inserted to detect any oesophageal abnormality that might have caused the obstruction.

The biggest piece of the stones retrieved measured 4.0 cm (largest diameter), and there were mucosal bruises at the point of impaction. A size 22.0 Nasogastric tube (NGT) was passed and the anaesthesia was reversed.

Postoperatively, the above antibiotics and 5% dextrose saline were given for 72-hours. NGT feeding commenced 8-hours post-operative period following full recovery from anaesthesia and oral feeding from the third day. The patient removed the NGT on the third post-operative day and did not allow it

He was discharged home in stable clinical state after seven days on admission. He was seen twice on a follow-up visit in the ENT out-patient clinic with no gastrointestinal complaints, but the caregiver still declines Psychiatric consultation.

3. DISCUSSION

The diagnosis of foreign body ingestion is easily made by history of a child playing with an object or an adult accidentally or deliberately swallowing an object, followed by its' disappearance/ingestion, dysphagia, drooling saliva, odynophagia and confirmation by plain x-ray [10-14]. Computed tomography (CT) scan [15] may be useful for the radiolucent object and in patients with suspected perforation of the oesophagus. It is noteworthy to beware of the potential risk of CT scan with contrast because of the disadvantages in coating/masking foreign body, mucosal injury and aspiration [5]. The clue to the assessment of oesophageal foreign body impaction in this case report was the previous history of the dangerous habit and the confirmation by the plain x-ray. The delay in the diagnosis was due to the late presentation, which

is common in patients with psychiatric disorders and mental retardation [8], as illustrated by the patient in this report.

The types of the ingested foreign body in this case report is peculiar because it was multiple and diverse in nature, secondly, not related to food or denture usually seen in the adult [1,6,11,13,16]. Similarly, it buttressed previous reports of an ingested foreign body in patients with mental retardation and personality disorders [8]. Additionally, we could not fathom out the reason(s) behind this action because of the impaired hearing, speech and mental development. However, there are reports that some patients engaged in compulsive foreign body ingestion [8] and some prisoners indulged in it for secondary gain [8].

The timing of the foreign body removal in this index case was unfortunately delayed due to late presentation. The European Society of Gastrointestinal Endoscopy strongly recommended endoscopic removal of complete foreign body impaction in the oesophagus preferably within 2-hours, but not more than 6-hours [15]. Moreover, other indications for emergency endoscopy are sharp, irregular foreign bodies, like the type in our patient, and disk batteries [5,15].

Flexible oesophagoscopy has been recommended as the best treatment of choice for the impacted foreign body in the oesophagus under conscious sedation in adult [5,6,10,15]. In our opinion, this method would be difficult to apply to the patient in this case report because of his disabilities. In addition, this treatment modality is unavailable in most developing countries, because of the relative cost and the expertise necessary for its effective and safe application. Therefore, we use the time-tested, cheaper and effective rigid oesophagoscope under general anaesthesia which is the treatment option readily available in Nigeria [1,3,9,11,13-14,16] and Similar report from Pakistan [6].

The patient in this case report was hospitalized for one week due to the operative finding of mucosal injury. We intended to leave the NGT insitu to serve as a stent, but we had to forgo it when the patient could not tolerate it. He was seen twice on follow-up visit without complication of stricture. His last visit was three months after the foreign body removal. The caregiver declined Psychiatric consultation, despite, adequate

counselling on the notion that the patient disabilities will not change.

4. CONCLUSION

A case of multiple, unusual and diverse oesophageal foreign body in a young man with background mental retardation. He had a satisfactory outcome with rigid therapeutic oesophagoscopy under general anaesthesia, despite, the delayed presentation.

CONSENT

As per international standard or university standard, written patient's consent has been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Amutta SB, Iseh KR, Aliyu D, Abdullahi D, Abdulrahman G. Ear, nose and throat foreign bodies in a tertiary health institution in Sokoto, Nigeria. *SMJ*. 2013;16(3):87-92.
2. Chai CK, Tang IP, Tan TY, Jong DEY. A review of ear, nose and throat foreign bodies in Sarawak General Hospital. A five year experience. *Med J Malaysia*. 2012;67(1):17-20.
3. Iseh KR, Oyedepo O, Aliyu D. Pharyngo-oesophageal foreign bodies: Implication for health care services in Nigeria. *Ann Afr Med*. 2006;5:52-5.
4. Simon A, Nimesh P, Ray C. Foreign bodies in the ear and aerodigestive tract in children. 7 ed. editor MG, editor. London: Hodder Arnold. 2008;1184-91.
5. Ambe P, A WS, Schauer M, Knoefel WT. swallowed foreign bodies in adults. *Deutsches Arzteblatt International/Dtsch Arztebl Int*. 2012;109(50):869-75.
6. Asif M, Haroon T, Khan Z, Muhammad R, Malik S, Khan M. Foreign body oesophagus: Types and site of impaction.

- Gomal Journal of Medical Sciences. 2013;11(2):163-6.
7. Stiles BM, Wilson WH, Bridges MA, Choudhury A, Rivera-Arias J, Nguyen DB, et al. Denture esophageal impaction refractory to endoscopic removal in a psychiatric patient. The Journal of Emergency Medicine. 2000;18(3):323-6.
 8. Gitlin DF, Caplan JP, Rogers MP, Barron OA, Braun I, Barsky AJ. Foreign body ingestion in patients with personality disorders. Psychosomatics. 2007;48(2): 162-6.
 9. Akenroye AI, T OA. Uncommon, undeclared oesophageal foreign bodies. Nigerian Journal of Clinical Practice. 2012;15:244-6.
 10. ASGE. Management of ingested foreign bodies and food impaction. Gastrointestinal Endoscopy. 2011;73(6): 1085-91.
 11. Jaa A. Overview of the management of swallowed gastrointestinal tract foreign body. Global Advanced Research Journal of Microbiology. 2013;2(6):99-106.
 12. Koyuncu N, Yilmaz S, Soysal S. An unusual cause of chest pain: Foreign body in the oesophagus. Emerg Med J. 2007;24(e1).
 13. OKhakhu AL, Ogisi FO. An usual foreign body in the human oesophagus - A case report. Benin Journal of Postgraduate Medicine. 2007;9(1):41-3.
 14. Onotai LO, Ebong EJ. Impacted fish hook in upper cervical oesophagus of two Nigerians: Case report. Journal of Medicine and Medical Sciences. 2012;3(6):365-70.
 15. Birk M, Bauerfeind P, Deprez PH, Hafner M, Hartmann D, Hasan C, et al. Removal of foreign bodies in the upper gastrointestinal tract in adults: European Society of Gastrointestinal Endoscopy (ESGE) clinical guideline. Endoscopy. 2016;48:489-96.
 16. Omokanye HK, Afolabi OA, Segun-Busari S, Dunmade AD, Ologe FE. Foreign body in the ear, nose and throat: Retrieval under general anaesthesia. Nigerian Journal of Otorhinolaryngology. 2016;13:15-8.

© 2018 Amutta et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

*The peer review history for this paper can be accessed here:
<http://www.sciencedomain.org/review-history/24581>*