Volume 20 Issue 26
Originally issued as J4

Global Journal of Medical Research: J
Dentistry & Otolaryngology
Volume 20 Issue 4 Version 1.0 Year 2020
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4618 & Print ISSN: 0975-5888

A Migratory Foreign Body from Cervical Esophageal Lumen: A Case Report

By Dr. Meena Vishwanath Kale & Dr. Ninad Subhash Gaikwad

Abstract- Introduction: ENT foreign body (FB) account for around 11% of emergencies. Swallowed FB especially fish, mutton bone or chicken bone are commonly seen in adult and elderly while coin in children. In adult, etiology may be considered due to gluttony, poor mastication or age related neuromuscular, decrease in oral tactile sensation. A traumatic FB of neck passed through the esophageal lumen and lodged into intramuscular plane of neck. Radiological investigations helps in localizing migrated FB from lumen. Neck dissection for extraluminal FB removal is the one of the surgical management.

Aim of study: To present extraluminal FB and its management.

Case Report: We had a case of a 60 year old female with complaints of 3 weeks continuous throat pricking sensation. She was treated like gastro-esophageal reflux disease (GERD) but was not getting relief, hence along with radiological investigations we have found a radiopaque extraluminal FB in the right trachea-esophageal groove. FB removal was done without any complications.

Keywords: esophageal lumen, extraluminal foreign body, GERD, neck dissection, radiopaque.

GJMR-J Classification: NLMC Code: WI 250



Strictly as per the compliance and regulations of:

© 2020. Dr. Meena Vishwanath Kale & Dr. Ninad Subhash Gaikwad. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/ 3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

A Migratory Foreign Body from Cervical Esophageal Lumen: A Case Report

Dr. Meena Vishwanath Kale [α] & Dr. Ninad Subhash Gaikwad [σ]

Abstract- Introduction: ENT foreign body (FB) account for around 11% of emergencies. Swallowed FB especially fish, mutton bone or chicken bone are commonly seen in adult and elderly while coin in children. In adult, etiology may be considered due to gluttony, poor mastication or age related neuromuscular, decrease in oral tactile sensation. A traumatic FB of neck passed through the esophageal lumen and lodged into intramuscular plane of neck. Radiological investigations helps in localizing migrated FB from lumen. Neck dissection for extraluminal FB removal is the one of the surgical management.

Aim of study: To present extraluminal FB and its management.

Case Report: we had a case of a 60 year old female with complaints of 3 weeks continuous throat pricking sensation. She was treated like gastro-esophageal reflux disease (GERD) but was not getting relief, hence along with radiological investigations we have found a radiopaque extraluminal FB in the right trachea-esophageal groove. FB removal was done without any complications.

Conclusion: Clinical presentation of extraluminal foreign body can be like GERD with suspicious history of FB ingestion. A detailed history with significant radiological investigations helps in diagnosis and management of radiopaque FB.

Keywords: esophageal lumen, extraluminal foreign body, GERD, neck dissection, radiopaque.

I. Introduction

Foreign body in ear, nose and throat are common and around 11% are responsible for ENT emergencies.[1] Ingestion of foreign body can be spontaneous or accidental. F.B. in throat is more common in adults or elderly patients whereas foreign body in nose and ear are more common in children.[2]

Incidence of swallowed FB in children is spontaneous due to their naughtiness while playing, intellectual disabilities, insanity, attention deficit hyperactivity disorder, along with the availability of the objects and absence of watchful caregivers.[3] FB that is found commonly in children are coins; due to the fact that the coins are often handed to younger children and they accidentally swallow because of their tendency to take things into the mouth. Inadequate control of deglutition and shouting or crying while playing or eating.[4]

Corresponding Author α: Senior Resident, TNMC & BYL Nair Ch hospital, ENT department, Mumbai Central.
e-mail: meenakale33@gmail.com
Author σ: Professor and Hou, ENT Department, ENT OPD-22, Basement, college building, HBTMC & Dr R.N. Cooper Hospital, Juhu.
e-mail: ninad_19@yahoo.com

In adults, esophageal FB (EFB) are more with fish, mutton or chicken bone. Heavy consumption of alcohol and eating meat like gluttons, especially during festive events, along with poor mastication may be the cause for meat bone/bolus impaction in adults.[4] While elderly, edentulous patients presented more with artificial dentures which can obliterate tactile sensation in the mouth so that bones and other sharp objects are not detected until they have entered the oropharynx.[5] Defective peristalsis due to age-related neuromuscular incoordination and poor masticating habits are the predisposing factors for the cause of impaction of meat bone/bolus in the esophagus [2,4]

Esophageal foreign body can be 1) non-traumatic like coins, marbles, peanuts, beads or 2) traumatic like needles, bone (fish, chicken, mutton) fragments, safety pin, piece of glass etc.

The most common site of impaction is the cricopharyngeal sphincter due to its narrowing. While the other sites of FB impaction are the cervical esophagus and the oropharynx i.e. tonsil, valeculla, base of the tongue.[2]

Clinically patients presenting with doubtful FB ingestion complain of pricking sensation in hypopharynx, dysphagia for solids and odynophagia.

If FB visible in oropharynx it can be easily removed with cold instruments in an OPD setup. While sometimes their diagnosis is made on examination with indirect laryngoscopy, flexible or 70^0 Hopkins rigid endoscope. Radiological investigations like X-ray neck with chest (AP and Lateral view). CT scan are indicated where the object is not found during endoscopic examination and has migrated to unusual and difficult to reach areas.[6] MRI is useful in the evaluation of organic foreign bodies.[6]

Management of FB in throat depends on its location. Most commonly direct laryngoscopy and rigid esophagoscopy is performed. Different modes of intervention for luminal and extraluminal FB of digestive tract are available.

Aim of our study to present a case of extraluminal foreign body with its management by using magnet.

II. Case Report

We had a case of a 60 year old female from Uttar Pradesh without any comorbidity; repeatedly complaining of pricking irritating sensation in throat, no

© 2020 Global Journals

dysphagia or odynophagia. General practitioner treated her like a gastro-esophageal reflux disease (GERD) for 3 weeks but she was not getting relief with her symptoms. She came to our tertiary care hospital to have relief of her symptoms. Initially we treated her like GERD with medical line of management. Her 70^0 degree Hopkins endoscopy revealed no evidence of foreign body or pooling of saliva in the pyriform fossa. Persistant pricking sensation made us to dig further into her history. Then she explained that the pricking sensation started while having food in a marriage ceremony. Furthermore we proceeded with X-ray neck antero-posterior and lateral view. This surprisingly showed a radiopaque sharp traumatic FB in right lateral part of the neck with (Fig:1) clinically no evidence of neck injury showing entry point of sharp object. Even with the FB in neck, surprisingly patient did not developed any infection due to continuation of antibiotics.

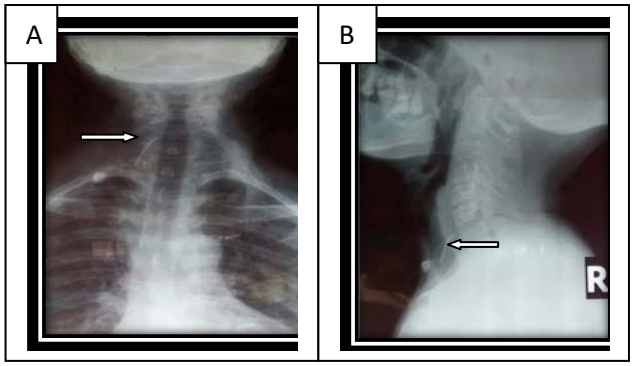


Fig. 1: ⇦ A: Antero-posterior view: Radiopaque wire like FB seen in TE groove

B: lateral view: one end of sharp object pointing towards esophagus

X-ray showed traumatic FB with a pointed end towards esophagus in tracheo-esophageal (TE) groove. Computed tomography was suggestive of extraluminal FB seen in right TE Groove abutting the carotid sheath. For management basis we have done flexible esophagoscopy to see if the tip of traumatic FB was visible. There was no esophageal mucosal damage or blood tinged but only normal healthy mucosa was seen. With assistance of a cardio-vascular-thoracic surgeon the patient was posted for right sided neck exploration, where inspite of a meticulous neck dissection we could not detect the FB. Hence we used high power magnets to pinpoint the foreign body and dissected around its magnetic field. Finally we found a rusted iron wire. Neck closed in layers with capillary drain. No evidence of post-operative complications.

III. Discussion

In our study, a 60 year old adult female had an accidental FB ingestion while eating food in a marriage reception. In some study there is male predominance of FB ingestion may be due to physical or psychological stress.[7] The mean age of male: female ratio is 51.5**:** 50.5 years in adults for ingested foreign body.[2,4] One of the study says in a marriage ceremony due to alcohol consumption and poor mastication leads to frequent FB lodgements in the digestive system[3]. Repeated complaints of GERD or throat pricking should be considered for further investigation specially X-ray neck or endoscopy for probable diagnosis.

In adult, FB lodgement in upper (cervical) esophagus is 2nd most common site after cricopharynx due to its narrow orifice.[4,8] Most common blunt esophageal FB is coin seen in children while chicken, fish or mutton bone FB is seen in adult stated by study of Adhikari P.[9]

We had an extraluminal FB from esophageal lumen into right side intramuscular plane of neck. In X-ray neck, we found a sharp radiopaque FB in right lateral side of neck. As per Nixon GW study, sharp foreign bodies of neck like needle, wire etc. may migrate extraluminally as their position changes with the act of deglutition.[10] We had proceeded with CT Scan of neck to rule out exact location of FB. As per Ray R et al, CT Scan of neck is usually adviced when the object was not found during esophagoscopy and had migrated extraluminally where it is present in unusual and difficult to reach areas.[6] Nowadays with advent technology, during removal of these foreign bodies, pre-operative fluoroscopy (C-arm) helps to detect the exact position of foreign body.[10] After investigations, patient was posted for neck exploration and removal of foreign body with the help of a high power magnet.

Rigid esophageal endoscopy is currently the most commonly used method for removal of esophageal foreign body.[11] Various other modalities available which have been described in the literature, such as dislodgment or removal by a Foley's catheter, advancement with bougie, balloon extraction during fluoroscopy etc. Fluoroscopically controlled foley's catheter can be used to remove the non-opaque, soft, smooth oesophageal foreign bodies like marble or meat bolus.[10] Extraluminal location of metallic radiopaque FB in neck, surgical neck dissection using a magnet is very effective.[8,11] Morbidity rates reported in the literature are lower than 1% [11] and 0.25% in study of Kalliopi A et al[8] and mortality rate is rare. 10–20% ingested FB require non-operative intervention as most of them pass

© 2020 Global Journals

harmlessly through gastrointestinal tract and only 1% or less require intervention[12,13].

IV. Conclusion

In case of prolonged symptoms of GERD with suspicious FB ingestion not getting relief with medical management for more than 2 weeks, then proceed with radiological investigations. Extraluminal radiopaque metallic FB are not uncommon but to treat it, meticulous neck dissection with magnet can be consider for management.

References Références Referencias

1. Bressler K, Shelton C. Ear foreign-body removal: a review of 98 consecutive cases. Laryngoscope. 1993; 103(4.1):367–370. doi: 10.1002/lary. 5541030401. [PubMed] [CrossRef] [Google Scholar]
2. Awad AH, ElTaher M. ENT Foreign Bodies: An Experience. Int Arch Otorhinolaryngol. 2018; 22(2):146-151. doi:10.1055/s-0037-1603922
3. Shrestha I, Shrestha B L, Amatya R CM.Analysis of ear, nose and throat foreign bodies in dhulikhel hospital Kathmandu Univ Med J (KUMJ) 201210384–8. [PubMed] [Google Scholar]
4. Parajuli R. Foreign bodies in the ear, nose and throat: an experience in a tertiary care hospital in central Nepal. Int Arch Otorhinolaryngol. 2015; 19(2):121-123. doi:10.1055/s-0034-1397336
5. Jackson, C. L., American Journal of Surgery, 1957, 93, 308.
6. Ray R, Dutta M, Mukherjee M, Gayen G C. Foreign body in ear, nose and throat: experience in a tertiary hospital. Indian J Otolaryngol Head Neck Surg. 2014; 66(1):13–16. [PMC free article] [PubMed] [Google Scholar]
7. Gautam V, Phillips J, Bowmer H, Reichl M. Foreign body in the throat. J Accid Emerg Med. 1994; 11:113–115. [PMC free article] [PubMed] [Google Scholar]
8. Kalliopi Athanassiadi, M. Gerazounis, E. Metaxas, Nikolitsa Kalantzi, Management of esophageal foreign bodies: a retrospective review of 400 cases, *European Journal of Cardio-Thoracic Surgery*, Volume 21, Issue 4, April 2002, Pg 653-56, https://doi.org/10.1016/S1010-7940(02)00032-5
9. Adhikari P, Shrestha B L, Baskota D K, Sinha B K. Accidental foreign body ingestion: analysis of 163 cases. Int Arch Otorhinolaryngol. 2007;11(3):267–270. [Google scholar]
10. Nixon GW. Foley catheter method of esophageal foreign body removal: extension of applications. Am J Radiol. 1979; 132:441- 442. [PubMed] [Google Scholar]
11. Cambell J.B., Foley L.C. A safe alternative to endoscopic removal of blunt esophageal foreign bodies, Arch Otolaryngol, 1983, vol.109 (pg.323-325) [Google Scholar] [Crossref] [PubMed]
12. Singh Bh., Kantu M., Har-El G., Lucente F.E. Complications associated with 327 foreign bodies of the pharynx, larynx and esophagus, Ann Otol Rhinolaryngol, 1997, vol.106(pg.301-304) [Google Scholar] [Crossref] [PubMed]
13. Nandi P., Ong G.B. Foreign body in the esophagus: review of 2394 cases, Br J Surg, 1978, vol.65 (pg.5-9) [Google Scholar] [Crossref] [PubMed]

© 2020 Global Journals