

Case Report

Impacted fishing hook in the upper cervical esophagus of two Nigerians: Case reports

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Abstract

Worldwide, foreign body (FB) ingestion is common in clinical practice; its impaction in the esophagus constitutes an important cause of morbidity and mortality. Most of the impacted foreign bodies in the esophagus require endoscopic removal with rigid esophagoscopy. We present two cases of adult Nigerians, male and female with unusual foreign bodies (fishing hooks) impacted in their upper cervical oesophagus while eating fish meals. The diagnosis of the female patient was suspected clinically, given that she presented with the rope that was attached to the fishing hook hanging in her oral cavity. Plain radiographs of the lateral and anterior soft tissue of the neck of both patients confirmed and located the sites of impaction of the foreign bodies. The foreign bodies were removed by the use of a rigid oesphagoscopy and mortality was recorded in the female patient. The peculiarities of these cases bother on the nature of the foreign bodies, location and the circumstances surrounding the incidents. To reduce the morbidity and mortality associated with this condition, a multidisciplinary approach is recommended in the management of these patients. Furthermore, there should be an urgent need for public enlightenment campaign on the awareness of finding this unusual foreign body in fish meals.

Keywords: Foreign body, fishing hook, upper cervical esophagus.

INTRODUCTION

Upper aero digestive tract emergencies are commonly caused by impacted foreign bodies in the esophagus and larynx. Impacted foreign bodies are remarkable causes of morbidity and mortality especially in children and elderly patients. Majority of cases of impacted foreign bodies in the esophagus usually present as an emergency to the otolaryngologist (Gilyoma and Chalaya, 2011).

Children who are less than 5 years of age are particularly vulnerable because of their inquisitive nature and the tendency to explore every available cavity in their body. Besides, adults who have worn dentures for over 5 years without follow up visits to their dentists are prone to accidental swallowing of dentures. The elderly and mentally sick individuals are also not exempted from this accident. Most elderly patients may be edentulous besides, having poor mental state which predisposes

them to having impacted foreign bodies in the esophagus (Nwaorgu et al., 2004; Okoye and Onotai, 2006; Okhakhu and Ogisi, 2007).

A variety of objects have been reported by several researchers on ingested esophageal foreign bodies ranging from coins, parts of toys, dentures, metallic objects (nails, ornaments) and fish bones. Objects commonly ingested by children and young adults most times are accidental although, they are reported cases of deliberate ingestion of foreign bodies/corrosives in some young adults who wanted to commit suicide (Okoye and Erefah, 2001; Weissberg and Refaely, 2007; Onotai and Nwogbo, 2010).

Rigid esophagoscopy for the removal of foreign bodies remain the best mode of treatment. However, there are other modes of treatment reported in literature; the use of flexible esophagoscopy, cervical esophagotomy and the use of Foley's catheter under fluoroscopic guidance (Athanasidi et al., 2002; Ashraf, 2006 Imam et al., 2009). Morbidity and mortality have been reported in several cases of impacted oesophageal foreign bodies

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due to late diagnosis, late referral to hospital, poor management and complications such as esophageal perforations causing mediastinitis (Yee et al., 1975; Nwaorgu et al., 2004).

However, there is paucity of information on impacted fishing hook in the esophagus of humans in our setting compared with numerous reports of fishing hooks in the esophagus of animals (Okhakhu and Ogisi, 2007). For that reason, we report two cases of fishing hooks in the oesophagus of two Nigerians. We shall also highlight the role of public enlightenment campaigns in preventing this condition as well as, emphasize the role of adequate monitoring of post-operative patients.

Case 1

We present a case of a 35 years old female trader who presented to Rex medical center which is one of the referral centers for otolaryngology cases in Port Harcourt Rivers State, Nigeria, on account of accidentally ingesting a foreign body while eating a fish meal given to her in a reception party for a neighbor's child dedication ceremony. Following the incident several attempts were made by sympathizers to remove the foreign body by pulling on the rope hanging in the oral cavity but all to no avail. There was associated bleeding from the mouth, vomiting, odynophagia and neck pain. No history of fever, hoarseness and difficulty in breathing. Patient was not a known hypertensive or diabetic; she does not smoke or drink alcohol. She presented to us 6 hours after the incidence; at presentation she was anxious, in painful distress and irritable. However, examination of the Mouth and oropharynx revealed a whitish rope hanging in the oropharynx and the foreign body to which the rope was attached could not be visualized (Figure 1).

Radiograph of lateral soft tissue of the neck revealed a curved radio-opaque object in the prevertebral soft tissue at the level of the 6th cervical vertebra (C-6) (Figure 2). Chest radiograph done was normal. Results of hematological and biochemical investigations were within normal limits. Based on the above history, clinical findings and investigations, we made a diagnosis of impacted foreign body (fishing hook) in the upper cervical oesophagus.

The patient was immediately worked up for rigid oesophagoscopy and foreign body extraction under general anaesthesia with endotracheal intubation and adequate muscle relaxation. Intra-operative findings were that of a shining metal fishing hook adherent to the muscle of the cricopharyngeal sphincter which was retrieved intact through the oesophagoscope using a grasping forceps although, with some difficulties (Figure 3). There was associated primary haemorrhage which was controlled. However, because of the nature of the foreign body and injury it must have caused to the mucosal and muscle of the esophagus a naso-gastric

tube was quickly passed before the patient was reversed from anaesthesia. Unfortunately, the patient had cardiac arrest and died in the recovering room 30 minutes after esophagoscopy. All attempts made to resuscitate the patient proved abortive. Examination of the mouth/oropharynx immediately after death showed slight oozing of secretions mixed with blood there were no blood clots. Autopsy could not be done because the relatives of the deceased patient declined the request.

Case 2

We present a similar case of a 45 years old male civil servant who was referred by a general practitioner in a private hospital in Port Harcourt to Rex Medical Center in Port Harcourt on account of accidentally ingesting a foreign body while eating a fish meal in a restaurant in Port Harcourt. He developed sudden pain in the throat and cough while eating a fish meal. He tried several times to dislodge the foreign body by putting his fingers into his throat but all to no avail. He is not a known hypertensive or diabetic; he does not smoke or drink alcohol. He presented to us 12 hours after the incidence with a plain radiograph of the anterior soft tissue of the neck. At presentation he was anxious and in painful distress. General physical examination was unremarkable. However, examination of the Mouth and oropharynx revealed bruises of the posterior pharyngeal wall probably from insertion of his fingers into the throat in an attempt to remove the foreign body.

The radiograph of anterior soft tissue of the neck revealed a curved radio-opaque object in the prevertebral soft tissue at the upper cervical esophagus (Figure 4). Chest radiograph done was normal and results of hematological and biochemical investigations were within normal limits. Based on the above history, clinical findings and investigations, we made a diagnosis of impacted foreign body in the oesophagus (fishing hook). The patient was immediately worked up for rigid oesophagoscopy and foreign body extraction under general anaesthesia with endotracheal intubation and adequate muscle relaxation.

Intra-operative findings were that of a shining metal fishing hook adherent to the muscle of the cricopharyngeal sphincter which was retrieved without difficulties and was delivered along with the oesophagoscope using a grasping forceps (Figure 5). There was no associated primary haemorrhage following the extraction of the foreign body. However, because of the nature of the foreign body and injury it must have caused to the mucosal and muscle of the esophagus a naso-gastric tube was passed before the patient was reversed from anaesthesia. At the recovering room patient was well monitored by the anesthetist and the recovering room nurse.

Post operatively, the patient was placed on nil by



Figure 1. Showing patient with the foreign body rope hanging in the mouth

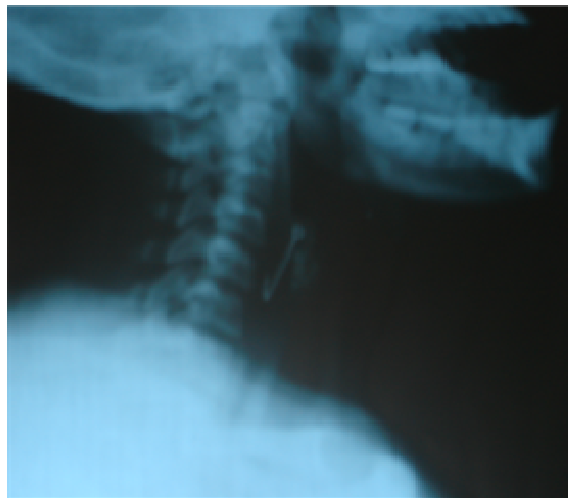


Figure 2. Plain radiograph of the lateral soft tissue of the neck showing a radio-opaque angulated foreign body in the prevertebra space



Figure 3. Showing fishing hook after removal

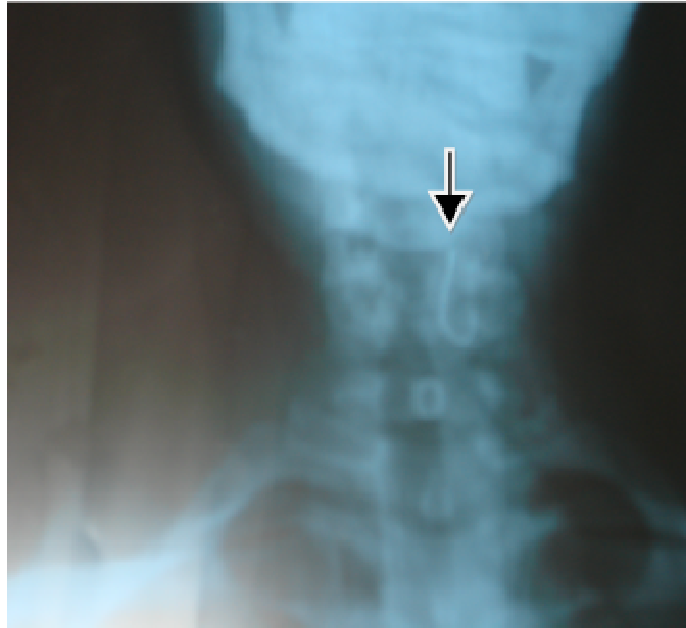


Figure 4. Showing plain radiograph of the anterior neck of the patient with a radio opaque angulated foreign body



Figure 5. Showing patient with fishing hook after removal

mouth and intravenous antibiotics for 72 hours while vital signs were monitored. A post operative chest radiograph done revealed normal findings. Thereafter, he was placed on graded oral intake which was well tolerated and was subsequently discharged home on the 5th day with oral drugs to continue treatment on out patient basis.

DISCUSSION

Foreign bodies in the esophagus constitute a common

otolaryngological problem especially in the extremes of life. Majority of foreign bodies usually pass through the gastrointestinal tract uneventfully without any form of treatment. Endoscopic treatment or surgical interventions are necessary in patients that have impacted foreign bodies (Taylor, 1987; Metin, 2005). Most patients with impacted foreign bodies present commonly with drooling of saliva, dysphagia, odynophagia and vomiting depending on its location. Angulated foreign bodies tend to be trapped in the proximal oesophagus. Penetrating or sharp foreign bodies are more dangerous as they tend to

get buried in the mucosa of the oesophagus or perforate it with disastrous consequences (Okhakhu and Ogisi, 2007).

Structural or functional abnormalities of the oesophagus are some of the major risk factors that make patients prone to impaction of esophageal foreign bodies. However, our patients don't belong to any of this risk group. Both cases were food related, the second case occurred 6 months after the incidence of the first case. Fishing hooks are not common food related ingested foreign bodies in the esophagus. The commonly reported food related ingested foreign bodies in the esophagus in the literature include; meat and fish bones, meat bolus, nuts and seeds (Taylor, 1987; Metin, 2005).

In the index cases, the fishing hooks were swallowed undetected and the foreign bodies were located in the upper cervical oesophagus around the cricopharyngeal sphincter which is one of the common sites for impaction. The use of plain radiographs was very helpful in confirming the diagnosis since the foreign bodies were radioopaque. The urgent removal of the foreign bodies was necessary to prevent possible complications such as migration, perforations of the oesophagus with subsequent mediastinitis (Okafor, 1979; Bhatia, 1989; Karnal et al., 2008).

The removal of angulated and sharp esophageal foreign bodies, some times poses a challenge to the endoscopist. Retrieval could be associated with laceration of the mucosal lining of the oesophagus. However, this can be minimized by ensuring extraction is undertaken by an experienced and skilled endoscopist who is more likely to remove the impacted foreign body together with the endoscope with minimal or no injuries to the esophagus (Orji et al., 2012; Roffman et al., 2002).

We offered our patients rigid esophagoscopy because it was often the treatment of choice for the management of impacted foreign bodies in the esophagus. Unfortunately, one of our patients had cardiac arrest and died despite all resuscitative measures carried out on her. The cardiac arrest which probably was not noticed on time could either be as a result of complications of anesthesia or of the procedure.

Some authors have reported similar cases of fishing hooks in the esophagus of human in the past. However, those cases did not present as emergencies unlike ours. Okhakhu and Ogisi in Benin City, Nigeria reported a case of impacted fishing hook found during routine medical checkup in a 65 years old male while, Bae et al., in Seoul, Korea reported on a case of endoscopic removal of an impacted esophageal foreign body, a fishing hook that had been present in the esophagus of their patient for 2 months and there were no complications after treatment (Okhakhu and Ogisi, 2007; Bae et al., 2009). Other unusual foreign bodies reported in literature include; diary products containers (food related); sewing needles and endotracheal tubes (not food related) (Bloom et al., 1988; Ahmad et al., 2001; Metin, 2005).

However, the emergence of this unusual foreign body associated with fish meals now calls for the need to carry out public enlightenment campaigns. The population should be educated on the possibility of finding fishing hooks in fish meals and the need for proper preparation of all foodstuffs before consumption. Furthermore, fish meals should be properly masticated before swallowing (Karatzanis et al., 2007; Okhakhu and Ogisi, 2007).

CONCLUSION

The peculiarities of these cases bother on the nature of the foreign bodies, location and the circumstances surrounding the incidents. Besides, to reduce the morbidity and mortality associated with this condition. A multidisciplinary approach (radiologist, otolaryngologist, cardio-thoracic surgeon and anaesthetist) should be encouraged in the management of these patients. Above all, there should be adequate monitoring and resuscitative facilities in the recovering room to enhance the successful resuscitation of all patients that develop complications following surgery.

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