Pharyngo-oesophageal Foreign Bodies: Implications for Health Care Services in Nigeria

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Abstract

Background: Pharyngo-oesophageal foreign body is the commonest endoscopic surgical emergency in otorhinolaryngological practice in Nigeria. Its implication in health care services of Nigeria is highlighted from the experiences of Usmanu Danfodiyo University Teaching Hospital Sokoto Nigeria.

Method: Clinical records of patients seen in the Ear, Nose and Throat department of Usmanu Danfodiyo University Teaching Hospital Sokoto from January 1999 to May 2003 with suspected or confirmed history of foreign body ingestion who were prospectively recruited were reviewed. The patients were subjected to thorough history, clinical examination and radiological investigation of the neck and chest. Rigid pharyngo-oesophagscopy and removal under general anaesthesia was carried out where indicated while some were observed for the foreign body to be passed in stool.

Results: A total number of 75 cases were seen. There were 50 males (66.7%) and 25 females (33.3%). Their ages ranged from 6 months - 90 years. Age group of 0-5 years accounted for 53.3%, while 0-10 years accounted for 68%. Coin (65.3%) was the commonest foreign body occurring mainly in the paediatric age group followed by bones (17.3%) and meat bolus (8%) in adults. Meat bolus was the only impacted foreign body amongst the elderly patients aged between 70-90 years. The duration of impaction ranged from a few hours to seven years. Compared with other reports, there were no foreign bodies of dental origin, no complications or mortality in their management.

Conclusion: Pharyngo-oesophageal foreign body impaction is the commonest indication for emergency surgical endoscopy. A functional up to date endoscopic unit backed by skilled manpower and easily accessible to the populace is advised.

Key words: Foreign bodies, pharynx, oesophagus, implications

Résumé

Fond: Le corps étranger Pharyngo-oesophagien est la chirurgicale endoscopique d’urgence la plus commune dans la pratique otorhinolaryngologique au Nigéria. Son implication dans les services de santé du Nigéria sont accentuées à partir des expériences à l’Hôpital d’Enseignement de l’Université d’Usmanu Danfodiyo, Sokoto, Nigéria.

Méthode: Les fiches cliniques des malades vues dans le département d'oreille, de nez et de pharynx de l'Hôpital d'Enseignement de l'Université d'Usmanu Danfodiyo, Sokoto à partir de janvier 1999 à mai 2003 avec l'histoire suspectée ou confirmée de l'ingestion de corps étrangers qui ont été prospectivement recrutés étaient passés en revue. Les malades ont été soumis à l'histoire complète, à l'examen clinique et à la recherche radiologique sur le cou et le coffre. Une pharyngo-oesophagoscopie rigide et le déplacement sous l'anesthésie générale ont été effectués où indiqués tandis que certains étaient observés pour le corps étranger à passer dans les selles.

Résultats: Un nombre total de 75 cas ont été vus. Il y avait 50 mâles (66,7%) et 25 femelles (33,3%). Leurs âges se sont étendus de 6 mois - 90 ans. La catégorie d'âge de 0-5 ans a représenté 53,3%, tandis que 0-10 ans ont représenté 68%. Le bruit de pot fêlé (65,3%) était le corps étranger le plus commun se produisant principalement dans la catégorie d'âge pédiatrique, suivie des os (17,3%) et du bol de viande (8%) dans les adultes. Le bol de viande était le seul corps étranger effectué parmi les vieux malades âgés entre 70-90 ans. La durée de l'impaction s'est étendue de quelques heures à sept ans. Comparé à d'autres rapports, il n'y avait aucun corps étranger d'origine dentaire, aucunes complications ou mortalité dans leur traitement.
Conclusion: l’impaction de corps étranger Pharyngo-oesophagien est l’indication la plus commune pour l’endoscopie chirurgicale de secours. Une unité endoscopique récente et fonctionnelle soutenue par la main d’oeuvre habile et facilement accessible à tout le monde est conseillée.

Mots clés: Corps étrangers, pharynx, eosophage, implications

Introduction

The ingestion of foreign bodies is not new in medical or surgical practice. It is as old as the practice of medicine. As long as man must eat to live, foreign body ingestion will always occur. Various objects are ingested either accidentally or deliberately for ritual, suicidal or homicidal purposes. These objects range from liquids such as petroleum products, acids, bases, to solids with a wide variety of them. Corrosive agents usually cause burns whose management has a standard protocol which is not the subject of this paper.

An estimated 1500 to 2750 individuals die annually in the United States of America following the ingestion of foreign objects. Most foreign bodies are seen in children who frequently swallow coins among other objects. There are several reported serious and sometimes fatal complications associated with impacted pharyngo-oesophageal foreign objects due either to late diagnosis, late referral to the hospital or mismanagement. Early diagnosis and appropriate management of these impacted objects prevents these complications. The ingestion of solid foreign bodies and its implications in the health care services in Nigeria using the experiences of Usmanu Danfodiyo University Teaching Hospital, Sokoto is the subject of this report.

Materials and Methods

Clinical records of patients presenting with confirmed or suspected history of foreign body ingestion who were prospectively recruited at the Ear, Nose and Throat Department of Usmanu Danfodiyo University Teaching Hospital, Sokoto from January 1999 to May 2003 were reviewed. The patients were subjected to thorough history, clinical examination and radiological investigation of the neck and chest. Cases presenting with severe respiratory distress and cough which during clinical assessment were confirmed radiologically or endoscopically to be laryngo-tracheo-bronchial foreign bodies were excluded from this study.

Rigid pharyngo-oesophagoscopy was carried out wherever there was radiological evidence of foreign body or history of ingestion of foreign body that was radiolucent, or presence of distressing symptom of dysphagia, odynophagia, cough or drooling of saliva, as a result of ingestion of a suspected foreign body. No intervention was carried out where history pointed to ingestion of meat bolus for 24-48hrs. Contrast study was ordered for these patients after spontaneous disimpaction. All rigid pharyngo-oesophagoscopy was carried out within 24-48hrs of presentation at the hospital. Data was analysed based on age, sex, types of foreign bodies, management protocol with their implications and presented in graphical, tabular and written forms. These results were compared with reports from other centres.

Results

A total number of 75 cases were seen during the period of review. There were 50 males (66.7%) and 25 females (33.3%). Their ages ranged from 6 months – 90 years. Age group of 0-5 years accounted for 53.3% while 0-10 years accounted for 68% (Figure 1). Coin (65.3%) was the commonest foreign body occurring mainly in the paediatric age group followed by bones (17.3%) and meat bolus (8%) in adults. Meat bolus was the only impacted foreign body amongst the elderly patients aged between 70-90 years. The duration of impaction ranged from a few hours to seven years. Compared with other reports, there were no foreign bodies of dental origin and no complications or mortality in their management.

Discussion

In this study, children were more affected than adults. This is in agreement with studies on this subject all over the world. Coins were the commonest foreign body seen in the paediatric age group in this study and is also a similar finding in most reports.
Health education therefore is imperative on child care, especially with regards to conducive play environment devoid of coins or easily ingestible objects. Provision of adequate shelter which promotes good health should be given adequate attention by private and government agencies in a developing nation like Nigeria. Parents and guardians must also be watchful to avoid foreign body ingestion.

Rigid pharyngo-oesophagoscopy in children requires instruments or equipment that should provide excellent illumination for visualization, high pressure suction machine in excellent working condition, appropriate foreign body grasping forceps, and expertise and commitment in paediatric anaesthesia. 1-3, 11, 12 The endoscopes at Usmanu Danfodiyo University Teaching Hospital, Sokoto have fibreoptic light source with excellent proximal or distal illumination. This has an advantage over endoscopes with conventional lighting whose bulbs may break or dislodge making endoscopy difficult and dangerous.

Experience on how to disimpact various types of foreign bodies requires skill which needs to be learnt and acquired to avoid serious complications such as perforation especially with foreign bodies of prolonged impaction during manoeuvres to disimpact and extract them.

Another important aspect is anaesthesia in paediatric and geriatric or elderly patients. Experience in this aspect cannot be over emphasized. The endoscopist and anaesthetist must work hand in hand to obtain the best results. 1-3, 11, 12 Timing of procedure, preoperative antibiotic cover in cases of prolonged impaction as well as postoperative care is very important.

A total number of 75 cases were seen over a 4yr 5 month period giving an average number of 17 cases per year requiring rigid pharyngo-oesophagoscopy. Training in endoscopy is an invaluable need in Health care system of Nigeria. In addition, provision of functional up to date endoscopic unit in every secondary and tertiary health facility with adequate anaesthesia is most desirable for easy access by all Nigerians. This will cater for patients who cannot afford long distant journey to tertiary Health centers who regrettably may not have the facilities for endoscopic removal of impacted foreign objects. Therefore endoscopic training should be given adequate prominence in residency training in Nigeria.

Bones particularly from fish were the commonest foreign bodies impacted in adults in this study while meat bolus was the commonest impacted foreign body in the elderly patients. This is similar to other reports where bones, food and meat bolus have been implicated in adults. 1-5 In Okafor’s series from south eastern Nigeria fish bones were the commonest foreign body more than coins and this was attributed to fish meal being very common in that environment. 4 Care must be taken while eating meat and fish with bones.

In our management of impacted meat bolus, conservative treatment consisting of observation with intravenous fluids, nil by mouth, parenteral antibiotics and analgesics for 24-48hrs resulted in foreign body disimpaction. This avoided any possible complication associated with attempts at pharyngo-oesophagoscopy under general anaesthesia particularly in the elderly patients. Attempts with agents to dissolve meat bolus using papain or aiding disimpaction with glucagon are well reported in literature with various side effects and sometimes fatal results. 1-3 Following disimpaction, contrast studies were always ordered to ascertain the state of the oesophagus and any underlying predisposing pathology causing impaction. None of the 6 patients with meat bolus did the contrast studies apparently because they were relieved of symptoms and did not see the need to spend additional money on this investigation despite being persuaded to do so. However, one of them came back 3 months later with total dysphagia from oesophageal tumour thereby emphasizing the need for contrast studies.

A case of kola nut was seen in this series. Kola nut is commonly chewed in Northern Nigeria. Okeowo reported more of such cases from Lagos in south western Nigeria for traditional medicinal purposes and by people who swallowed whole kola nut for protection against enemies. 5 However compared to other reports there were no foreign bodies of dental origin such as dentures. 1-3, 11, 12 Dentures manufactured in Nigeria are made from acrylic resin and are therefore almost radiolucent. 13 Endoscopy is the best technique for localizing the foreign body. It is far better to do an endoscopy where there is persistence of symptoms than to leave behind an impacted foreign body with potentially dangerous consequences. 15

Since most rural settings are without endoscopic facilities, there should be provision of functional telephone and good ambulance services between rural and urban areas to link up with existing centres with adequate facilities for endoscopy for an early intervention.

Since Pharyngog-oesophageal foreign body impaction is the commonest indication for endoscopy, a functional up to date endoscopic unit backed by skilled manpower should be made easily accessible to all Nigerians. Government should, as a matter of necessity monitor the practice of traditional medical healers in Nigeria. No one knows the fate of many other victims of their practices.

References