A STUDY OF FOREIGN BODY OESOPHAGUS

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ABSTRACT

Introductions: Esophageal foreign bodies (FB) and food bolus impaction is a common problem presented in emergency. Children and elderly population are commonly affected. Although majority of esophageal foreign bodies do not pose serious problem or mortality but, bodies like sharp objects and button batteries are dangerous and may cause life threatening complications.

Objectives: This study was undertaken to know the epidemiology of foreign body ingestion, types of foreign bodies commonly ingested, clinical features and investigations contributing in diagnosis; techniques of foreign body removal, and complications associated with foreign bodies.

Methods: A positive history of foreign body ingestion, pain on deglutition, difficulty in swallowing, drooling of saliva, is obtained. A thorough clinical examination including indirect laryngoscopy (IDL) is undertaken, looking for evidence of FB viz. pooling of saliva, fullness in the postcricoid region, neck swelling and neck crepitus. Children were especially screened for any respiratory distress due to foreign body oesophagus compressing on the trachea. X Ray of neck & chest, anteroposterior and lateral views are done to confirm the diagnosis, ascertain the type of foreign body, site of impaction and to look for other information like osteophytes, retropharyngeal abscess etc. Rigid esophagoscopy under general anaesthesia was planned for removal of foreign body.

Results: A total of 54 patients reported, in which Thirty six (66.66%) were males and eighteen (33.33%) were females. Wide age group of patients was affected and youngest patient was 10 months old and oldest patient was 72 years old. In adults commonest foreign body is impacted food bolus .Commonest foreign body esophagus found is coin, seen in thirty (55.55%) cases. In children commonest foreign body is coin i.e. in thirty cases and other foreign bodies found were plastic button and button battery.

Key words: Foreign body, FB, Cricopharynx, Esophagus, esophagoscopy.

INTRODUCTION

Foreign body of esophagus is a common problem in ENT emergencies, mostly seen in children and elderly population. In adults its association with alcohol intoxication, psychiatric disorders, edentulous condition, is often noted. Some foreign bodies are particularly seen in specific age groups like coins in children, Dentures and meat pieces in elderly population. Particular types of foreign bodies like button battery, sharp materials, that are capable of inflicting greater damage, even perforation of esophagus, must be removed immediately on emergency basis. Whereas many foreign bodies like coins are benign in nature, can be removed electively or may be waited for spontaneous passage. Food bolus impaction is common in esophagus with underlying pathology like stricture, malignancy, or some underlying disorders of peristalsis. Foreign body removal should be meticulously planned for a better outcome.

METHODS

A total of 54 patients were included in the study who presented in ENT department of VSGGMS&RI.
with foreign body ingestion or food bolus impaction between August 2014 to July 2015.

A positive history of foreign body ingestion, pain on deglutition, difficulty in swallowing, drooling of saliva, is obtained. A thorough clinical examination including IDL is undertaken, looking for evidence of FB viz. pooling of saliva, fullness in the postcricoid region, neck swelling and neck crepitus.

Children were especially screened for any respiratory distress due to foreign body oesophagus compressing on the trachea. X Ray of neck & chest in anteroposterior and lateral views are done to confirm the diagnosis, ascertain the type of foreign body, site of impaction and to look for other information like osteophytes, retropharyngeal abscess etc. Rigid esophagoscopy under general anaesthesia was planned for removal of foreign body. The timing of procedure was decided on the basis of the nature of foreign body and clinical scenario. Foreign bodies with high complications like sharp materials, button cells, magnets, bones etc. were removed urgently in emergency. Foreign bodies with near total obstruction or total obstruction were also removed at the earliest possible, whereas non corrosive foreign bodies and foreign bodies with partial obstruction were removed in first elective OT within 24 hours. Occasionally inert atraumatic, asymptomatic foreign bodies were waited for spontaneous passage. During procedure other fine details are noted like nature of foreign body, site of impaction, condition of surrounding esophageal tissue, technique and type of instruments used for retrieval and complications, if any. After retrieval of foreign body, re-endoscopy was done to see for any other foreign body, mucosal injury, previous stricture, growth, malformation etc. as a cause for esophageal impaction. Post procedure patient kept for observation for few hours and then discharged.

RESULTS

A total of 54 patients reported, in which Thirty six (66.66%) were males and eighteen (33.33%) were females. Wide age group affected, youngest patient was 10 months old and oldest patient was 72 years old. Higher incidence was seen in children in comparison to adults, thirty-four (62.96 %) patients were under 10 years of age, and in case of adults highest incidence was seen in the age group of 41-50 years, a total of 10 cases (18.51%) were reported. Time interval between ingestion and retrieval of foreign body was 1-7 days. Thirty six (66.66%) patients were seen within 24 hours after ingestion of foreign body. Ten (18%) patients were seen between 24-48 hours after ingestion. Rest of the patients were seen between 2-7 days. Commonest foreign body esophagus found is coin, seen in thirty (55.55%) cases. In children commonest foreign body is coin (30) and other foreign bodies found were plastic button and button battery. In adults commonest foreign body is impacted food bolus see in ten cases followed by dentures seen in five cases. In adults, association of esophageal foreign body and intoxication was seen in ten (18.51%) cases. Cricopharynx the most common site of coin impaction was being seen in 78% of cases. Food bolus impaction was mainly seen in upper 1/3rd of esophagus. Esophageal foreign body related complications such as mucosal damage but no perforation were found in 2 cases. In these cases Ryle’s tube was put prophylactically after FB removal.

DISCUSSION

Foreign body ingestion is a common problem commonly seen in children and elderly population. Children have a tendency of putting everything in mouth and sometimes it is accidently ingested. Coin is the commonest foreign body ingested by children. In middle age population food bolus impaction generally occurs under the influence of alcohol intoxication. In elderly population denture ingestion is a common problem. Older children and Adult patients generally give the history of foreign body ingestion but small children and psychotic patients may not give proper history. So probable diagnosis must be made on the basis of suspicion raised by the parents and presenting symptoms and signs like vomiting, dysphasia, pain, drooling of saliva, choking and respiratory distress.

Radiological investigations are important in identifying the type of FB, its shape, size and location. It also gives the information regarding the condition of surrounding tissue and complications if any viz. cellulitis, retropharyngeal abscess, gas shadow, prevertebral widening, straightening of vertebral bodies etc. X-ray neck & chest anterior-posterior & lateral views can readily identify most of the foreign bodies, but some foreign bodies like a thin fish bone, plastics, wood, are not identifiable in X-rays. Even in case of
negative radiological findings, if history of foreign body ingestion is there and supportive esophageal signs and symptoms are present then esophageal endoscopy should be done.

Timing of foreign body removal depends on the type of foreign body ingested, severity of dysphagia, and risk of aspiration, age of the patient and duration of foreign body impaction. Sharp foreign body in esophagus is a medical emergency as it may cause esophageal perforation and it must be retrieved earliest possible. Coin in esophagus generally passes spontaneously, can be watched for 24 hours if patient is asymptomatic. Button battery in esophagus is a medical emergency due to its corrosive nature and it may cause perforation of esophagus if not removed early. Esophageal foreign objects and food impactions should be removed within 24 hours because; as duration increases it makes successful removal difficult and increases the risk of complications including risk of perforation.

Esophageal foreign body is retrieved with rigid or flexible esophagoscope, both has its merits and demerits. Flexible esophagoscope has the advantage that it can be performed under sedation in cooperative patients. It also has less chances of esophageal perforation. Rigid osphagoscopy has high success rate of foreign body removal and it aids in air way protection. Various retrieval forceps and devices are available, like rat tooth forceps, crocodile forceps, peanut forceps, Dormier baskets for smooth round foreign bodies, polypectomy snare. Rigid esophagoscopy is an effective and safe means of foreign body removal when handled by an experienced operator.

CONCLUSIONS

Foreign body ingestion is common in children and elderly population. In Children and adults commonest foreign bodies are coin and meat bolus respectively. In adults, association between food bolus impaction and alcohol intoxication is clearly established. Even without reliable history, suspicion of foreign body on the basis of signs & symptoms of child is an indication for esophagoscopy. Sharp and corrosive foreign bodies should be removed at the earliest on emergency basis to avoid perforation and subsequent life threatening complications. Small asymptomatic, non traumatic, inert foreign bodies may be watched for spontaneous expulsion. Rigid esophagoscopy is an effective and safe means of foreign body removal when handled by an experienced operator.

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