



An Unusual Foreign Body in the Upper Cervical Esophagus: A Case Report

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Abstract

Majority of esophageal foreign bodies don't cause any complication by directly passing through gastrointestinal system; however, minority of them requires endoscopic or surgical treatment. Here, we presented an unusual esophageal foreign body due to its localization and shape without any risk factor, which is removed successfully by using endoscopic approach.

Keywords: Esophagus, foreign body, dysphagia, esophagoscopy

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Introduction

Foreign bodies in esophagus cause severe clinical condition due to potential severe complications such as esophagus perforation, mediastinitis, fistulization or airway obstruction [1]. Thus, it is important to establish prompt and accurate diagnosis and to manage accordingly. No intervention is required in more than 80%. Majority of foreign bodies requiring intervention can be removed in endoscopic manner [2].

Case

A 49-years old man presented to emergency department with difficulty to swallow developed after a meal and pain during swallow in October, 2014. The patient was presented to emergency department 5 hours after meal. On postero-anterior and lateral plain radiographs, a radiopaque foreign body (3.0x1.5 cm in size) was seen in upper cervical esophagus (Figure 1, 2).



Figure 1. Postero-anterior chest X-ray showing radio-opaque foreign body (3 x 1.5 cm) at level of upper cervical oesophagus.

No free air was detected in mediastinum on plain radiographs. Emergent endoscopic exploration was performed under sedation by using flexible endoscope. During endoscopy, a foreign body suggesting bone fragment was observed beneath upper esophageal sphincter localized at a distance of 15 cm after mouth, which caused mucosal bleeding.



Figure 2. Lateral chest X-ray showing radio-opaque foreign body (3 x 1.5 cm) at level of upper cervical oesophagus.

The foreign body was grasped by sharp edge of grasping forceps, but it was failed to remove foreign body due to its shape and size, and mucosal penetration. After a few unsuccessful maneuvers, foreign body was released from mucosa by moving forceps down. Then, it was re-grasped by forceps and removed through a few challenging maneuvers. It was seen that the foreign body removed was a sharp, triangular bone fragment with irregular edge at one side (Figure 3, 4).

The patient was given proton pump inhibitors, antibiotic and fluid therapy. The patient was discharged on the day 3, as he had normal radiographs and flexible esophagogastrosocopy.



Figure 3. Foreign body extracted.



Figure 4. Foreign body extracted

Discussion

Esophageal foreign body is mainly seen in children, patients without teeth or those with mental disorder. Bone, meat, dried fruits, and hard cash are the most commonly seen foreign bodies [3]. Our patient had none of these risk factors.

Majority of esophageal foreign bodies don't cause any complication by directly passing through gastrointestinal tract. However, some foreign bodies can cause potential complications such as perforation, mediastinitis, fistulization and airway obstruction by stopping at physiological and pathological strictures of esophagus [4]. As a result, it appears as a serious problem that may cause significant morbidity and mortality [5].

Clinically, it can cause acute onset of dysphagia and difficulty in swallowing saliva along with chest pain, feeling of compression at chest and laryngeal irritation [6].

Localization and position of foreign body is of importance. Although it can vary by age, the most challenging localization is upper cervical region [7]. Most foreign bodies can be visualized by plain radiographs (cervical, chest and abdominal). Particularly, plain radiographs are valuable to identify localization. However, some foreign bodies cannot be visualized by plain radiographs; thus, barium radiographs is helpful in such cases. CT scan is valuable to confirm localization and interaction with adjacent tissues [8]. In our case localization of foreign body was identified by plain radiographs. CT scan was ordered due to presence of severe chest pain and shape of foreign body in order to rule out complications.

Many factors including age, clinical presentation, shape, localization, number and size of foreign body affect choice of management. Endoscopy is preferred, as it allows inspection of esophageal mucosa and safe removal of foreign body. It is generally performed under sedation. However, endotracheal intubation and general anesthesia may be needed in case of multiple object or psychiatric patients. Rigid endoscopy may be required in foreign bodies localized at upper esophagus [9]. In our case, foreign body was removed successfully by using flexible endoscope. Laparoscopic approach is warranted in cases in which endoscopic approach is failed [10].

Conclusion

Prompt assessment of esophageal foreign bodies is of importance in terms of management. Radiological evaluation before removal is indicated to confirm diagnosis of foreign body. Particularly, plain radiographs are important tools to identify localization of foreign body. Moreover, emergent endoscopy is indicated in such patients, which is an important part of management.

Disclosure of conflicts of interest

All the authors declare that they have no conflict of interest.

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