

## An Unusual Esophageal Foreign Body in a Psychiatric Patient: A Case Report

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### Abstract

**Background:** Foreign body ingestion is a problem seen frequently in the emergency department, particularly in children and elderly patients. The possibility of foreign body ingestion should be considered in psychiatric patients. In some complicated cases, foreign bodies cannot be removed by esophagoscopy and require surgical intervention.

**Case presentation:** We present the case of a 50-year-old male with psychiatric disorder presented to our department with dysphagia after ingestion of stone piece or brick piece. CT scan of the neck revealed hyperdense substance (measuring approx. 4.0 X 3.5 cm) in esophagus at the level of lower border of C5 to C7. After a failed rigid esophagoscopy removal, he underwent surgery, with subsequent resolution of the condition.

**Conclusion:** Although in most cases of esophageal foreign body there is a spontaneous passage through the gastrointestinal tract, in some cases there is the possibility of requiring esophagoscopy (reported success greater than 95% of cases) or surgical treatment.

**Keywords:** Dysphagia, Foreign body ingestion, Psychiatric disorder, Failed esophagoscopy removal, Surgical intervention.

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### INTRODUCTION

Incidental or accidental ingestion of foreign bodies is probable in all ages, especially in children and the elderly as well as those with a history of mental and psychiatric disorders.<sup>1</sup> Majority of ingested foreign bodies, particularly if they are smooth or smaller than 20 mm in diameter will pass safely through the gastrointestinal tract.

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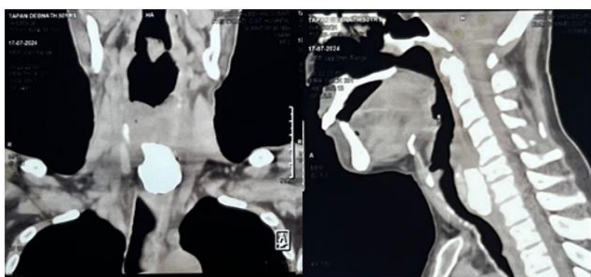
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The post cricoid region is the site of impaction of foreign bodies in 84% of the subjects. The diagnosis is made clinically and is complemented with imaging studies and in case of not achieving a definitive diagnosis, an endoscopy is indicated. The esophageal site of occlusion depends on different factors, which include: anatomical (areas of less light such as the upper third of the esophagus), associated pathology (cancer, sclerotherapy, etc.) and the nature of the foreign body (sharp, spherical, etc.).<sup>2</sup> Foreign bodies in the esophagus may cause critical clinical conditions due to complications (e.g., esophageal perforation, mediastinitis, fistulisation or airway obstruction) with high mortality and morbidity rates. Thus, accurate and timely diagnosis and treatment are required.<sup>3</sup> Here we report the successful removal of a large, self-inserted foreign body in esophagus via left cervical access in a male patient with psychiatric disorder.

### CASE REPORT

A 50-year-old man presented to our department with complaints of difficulty in swallowing, pain on swallowing and drooling of saliva for 5 days. He is a known case of major psychiatric disorder under irregular medications. The general physical examination was unremarkable except that he was very restless. Examination of the ear, nose and throat was all within normal limits and on indirect laryngoscopy there was pooling of saliva in both pyriform sinuses. CT scan of the neck revealed hyperdense substance with antecedents of foreign body measuring 4.0 X 3.5 cm in esophagus at the level of lower border of C5 to C7 (Fig. 1) without data suggestive of perforation. So, a diagnosis of foreign body oesophagus was made.

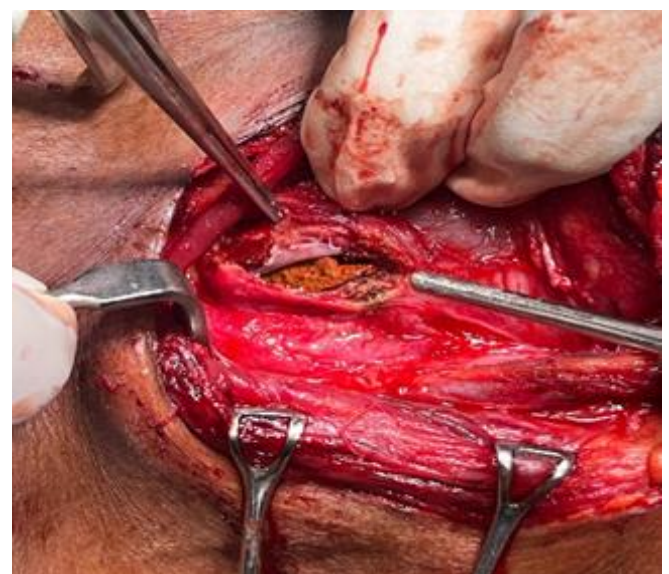


**Fig. 1: CECT of the neck (coronal and sagittal) showing hyperdense substance extending from lower border of C5 to C7.**

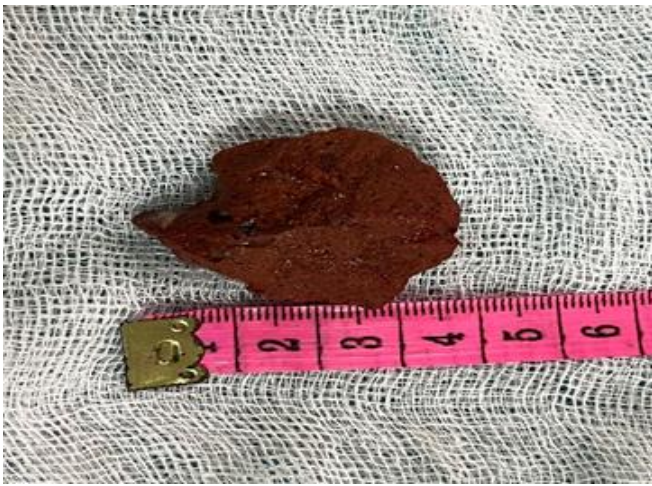
The patient was subjected to rigid esophagoscopy under general anaesthesia. Using an adult esophagoscope, upper end of the foreign body was encountered and could not be extracted out after multiple attempts with forceps. After esophagoscopy treatment failure, surgical extraction of the foreign body was attempted through a left lateral cervicotomy (Fig. 2), and a large (approx. 4.0 X 3.5 cm), irregular surface foreign body (piece of brick) (Fig. 3) was found in the cervical portion of the esophagus, which was removed (Fig. 4) and necrotic tissues were debrided and the esophagus was closed in layers and then, subcutaneous layer and skin respectively. A suction drain was kept in situ for 2 days (Fig. 5).



**Figure 2: Left lateral neck incision along the anterior border of sternocleidomastoid.**



**Fig. 3: Foreign body in esophagus.**



**Fig. 4: Extracted foreign body.**

After the surgical procedure, the patient received intravenous piperacillin-tazobactam for 5 days and enteral nutrition was given by nasogastric tube for 10 days and suture removal was done after 7 post operative days. After 15 days of hospitalization, the patient was discharged and the final clinical evolution was favourable, without sequelae.



**Fig. 5: Closure of wound with drain in situ.**

### DISCUSSION

Foreign body (FB) ingestion may occur accidentally or intentionally. Commonly swallowed foreign bodies are chicken or fish bones, dentures, plastic cutlery, coins, or metal safety pins. Generally, objects less than 2 cm in size may pass through the normal adult esophagus without any problem. Symptoms of foreign body ingestion in esophagus may include dysphagia, odynophagia or drooling. Patient history should lead to prompt use of diagnostic modalities in suspected patients. CT scan offers strong diagnostic accuracy in such cases.<sup>4</sup> The approach to an ingested foreign body depends on the size, sharp or smooth edges of the object, number, time from ingestion and the object location at presentation.

There is a greater risk of impaction of objects in patients with pre-existing esophageal pathology, which in a study was found to be 5.5%.<sup>5</sup> In this case, there was no evidence of esophageal pathology, which has been reported to be present in up to 62% of patients.<sup>6</sup> Endoscopy has become the treatment of choice in most of the cases with a success rate of up to 95.6%; this has generated a decrease in health costs and decreased the proportion of associated complications. The common complications occurring while using a rigid esophagoscope are injury to the lips, teeth tongue, palate and esophageal perforation which commonly occurs at the level of cricopharyngeal sphincter. Complications can be reduced if treatment is started within 24 hours of foreign body impaction.<sup>7</sup> In the present case, this treatment was initially indicated; but it was unsuccessful despite multiple attempts. In cases where it is not possible to solve the impaction via endoscopy, surgical treatment becomes relevant, as was the case presented; where in the literature, it is reported that up to 1.6% of patients warrant surgery, either due to failure of endoscopic treatment or due to the existence of an esophageal perforation.<sup>8,9</sup> The postoperative evolution of the patient was satisfactory, without sequels. Due to the characteristics of the foreign body a complication like esophageal perforation was expected, but it resolved with conservative treatment.

### CONCLUSION

Ingestion of foreign bodies is a condition most frequently seen in children, there is a considerable number of cases in the adult population. In patients with psychiatric disorders, the possible risk of foreign body ingestion should be considered. Deferring medical treatment can increase the risk of complications. As in this case, the failure in endoscopic management leads to perform surgical treatment, which represents greater morbidity and mortality, that is why the management of these patients should be carried out in centres where the necessary resources, trained personnel and a multidisciplinary team can be offered.

#### **Conflict Of Interest**

None

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None

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