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Case report

Delayed Diagnosis and Uneventful Recovery: Unusual 20-Month Case of an Esophageal Foreign Body

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Abstract

Background: Prolonged retention of foreign bodies in the esophagus is rare and often delays diagnosis. Most patients seek medical attention within the first 72 hours after ingestion, preventing severe complications. **Case presentation:** We describe a 46-year-old man with an 18-month history of progressive dysphagia. After extensive diagnostic evaluation, a foreign body was identified in the upper esophagus—a dental prosthesis accidentally ingested 20 months earlier during an episode of alcohol intoxication. Given the degree of structural esophageal compromise, surgical extraction via cervicotomy and esophagotomy was performed. Postoperative recovery was favorable, with no major complications. **Conclusion:** This case underscores the importance of considering prolonged foreign body retention in patients with chronic, unexplained dysphagia. A detailed clinical history, appropriate imaging and endoscopic studies, and timely surgical intervention were critical to achieving a successful outcome. The absence of postoperative complications highlights the value of early recognition and proper management.

Keywords

Foreign body, esophagus, delayed diagnosis.

INTRODUCTION

Accidental or intentional ingestion of a foreign body is a relatively common situation in clinical practice[1]. Seventy-five percent of cases occur in children[2], primarily between three months and six years of age[3], and 25% in adults[2], in whom the main risk factors are intellectual disability, psychiatric disorders, alcohol abuse, and edentulism[4]. In the pediatric population, foreign bodies include objects such as coins, small toys, or even partially chewed food[2], whereas in adults the most frequent foreign bodies are fish bones and other bones[5]. In Colombia, González M. and colleagues conducted an observational study that included 110 patients aged 1 to 79 years, in which the esophageal foreign body was a fish bone in 33% of cases, a bone in 30%, coins in 13%, impacted meat in 11%, dentures in 3.3%, and another object in 8.4%[6]. Similarly, Aponte-Marín D. and colleagues carried out a 14-year retrospective descriptive study including patients aged 18 to 95 years, which determined that the most common location was the esophagus in 12.53% of cases, followed by the cricopharynx in 11.18% and the hypopharynx in 10%[7].

Although 80% to 90% of foreign bodies pass spontaneously through the gastrointestinal tract[1–3,8], the remaining 10% to 20% require intervention for removal. Endoscopy is usually the procedure of choice[6,9], and fewer than 1% of cases require surgical intervention[3]. An impacted foreign body carries a risk of serious complications such

as perforation, acute mediastinitis, and hemorrhage[10]. For this reason, patients with a history of ingestion and a sensation of foreign body impaction typically seek medical care an average of 1 to 72 hours after the event[6]. However, very few cases have been reported in which an esophageal foreign body persists for months, such as the case of a 57-year-old patient who remained asymptomatic until seven months after ingestion[11], or that of a six-month-old infant who presented with respiratory symptoms, including a three-month history of chronic cough secondary to a pistachio shell lodged in the esophagus[12]. There are even dramatic clinical presentations, such as the presence of an inflammatory mass in the posterior mediastinum after 26 months due to an aluminum cap in the esophagus[10].

We present the clinical case of a patient who developed gradually progressive dysphagia over 18 months, in whom multiple differential diagnoses were considered prior to the identification of an esophageal foreign body secondary to ingestion of his dental prosthesis during a state of intoxication 20 months earlier. The patient provided and signed informed consent authorizing the scientific publication of this report.

CASE REPORT

We describe a 46-year-old male patient from Apulo, Cundinamarca, a construction worker with a high-school level education, who presented to the medical center with an 18-month history of progressive dysphagia. Due to worsening symptoms and the endoscopic finding of a solid esophageal lesion with severe stenosis, he was referred to the emergency department.

Prior to admission to our institution, the patient had initially sought outpatient medical care after six months of progressive dysphagia and odynophagia and was referred to the otorhinolaryngology service, where he was first evaluated nine months after symptom onset. Nasofibrolaryngoscopy was performed under the diagnostic suspicion of chronic pharyngitis and revealed left septal deviation, bilateral inferior turbinate hypertrophy, oral moniliasis, and laryngeal manifestations of gastroesophageal reflux disease. Based on these findings, he was referred to gastroenterology.

The gastroenterology service indicated an upper gastrointestinal endoscopy to evaluate chronic dysphagia of 13 months' duration at that time. The procedure was performed four months prior to admission and reported chronic antral gastritis and a mass in the cervical esophagus. A biopsy was obtained, and the pathology report described a fibrin mesh, mucohemorrhagic material with severe acute inflammation, occasional bacterial colonies, scattered epithelial cells, and reactive changes, concluding moderate lymphoid aggregate activity with the presence of foveolar hyperplasia.

Additionally, a barium esophagogram was ordered two months prior to hospital admission at our institution. The radiology report described adequate coordination of the soft palate, opacification of an esophagus of normal caliber throughout its entire length, no intrinsic lesions or extrinsic compression, adequate passage of contrast into the stomach, and no evidence of gastroesophageal reflux (**Figure 1**). Based on these results, gastroenterology recommended follow-up with endoscopic ultrasound, which was performed two days prior to admission to our institution and reported upper esophageal stenosis due to a space-occupying lesion with whitish, submucosal, solid characteristics. Ultrasonographic scanning at 12 MHz demonstrated an irregular hyperechoic component causing stenosis that impeded distal advancement of the endoscopic equipment.

The diagnosis was a solid lesion of the upper esophagus; an embedded foreign body within the esophageal wall and secondary severe stenosis were ruled out. Therefore, the patient was referred to the emergency department for evaluation by gastroenterology and general surgery.

During hospitalization, given the high suspicion of a neoplastic lesion on the right anterolateral proximal esophageal wall, involving 50% of the lumen, a contrast-enhanced computed tomography (CT) scan of the chest and neck was indicated. This study reported an image suggestive of a hyperdense foreign body in the proximal esophagus at the level of the T1–T2 vertebral bodies, associated with thickening of the esophageal walls at this location. Correlation with a complementary endoscopic study was recommended for adequate characterization (**Figures 2** and **3**). In light of these imaging findings, the patient was reinterviewed and reported that 20 months earlier, during an episode of intoxication, he had lost his dental prosthesis. He stated that he had not attributed his symptoms to that episode, as he remained asymptomatic until two months later and assumed that the prosthesis had been lost rather than swallowed.

Given the new findings, gastroenterology performed a third endoscopy, which reported a five-centimeter foreign body embedded immediately below the cricopharyngeal muscle, with a high suspicion of contained perforation. However, the patient showed no signs suggestive of mediastinitis, was hemodynamically stable, had no signs of systemic inflammatory response or ventilatory failure, and laboratory tests showed no leukocytosis or neutrophilia, with normal nitrogenous waste levels. Therefore, a scheduled surgical procedure was indicated.

A left cervicotomy with esophagotomy was performed, revealing severe tissue edema, marked fibrosis in the tra-



Figure 1. Esophagogram prior to hospital admission. Author's file.

cheoesophageal groove that completely distorted the anatomy, and a foreign body (dental prosthesis) (**Figure 4**) embedded in the esophageal mucosa. The foreign body was removed, esophagorrhaphy was performed, and a sternocleidomastoid muscle patch was fashioned. Finally, layered closure was completed, a Jackson-Pratt drain was placed, and inpatient monitoring was indicated with antibiotic therapy using cefuroxime and metronidazole, in addition to parenteral nutrition.

A methylene blue test was performed on postoperative day five and was negative for leaks. An esophagogram was performed on postoperative day six, which reported parameters within normal limits, with no leaks or stenosis (**Figure 5**). Progressive oral intake was then initiated and was tolerated without complications. The patient was ultimately discharged on postoperative day eight after removal of the drain, with no need for further interventions. The patient returned for follow-up one month after hospital

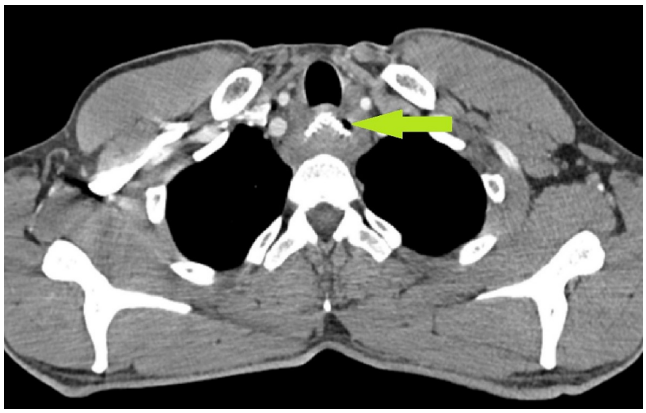


Figure 2. Axial chest CT. The green arrow indicates a foreign body at the T2 level. Author's file.

discharge, at which time satisfactory clinical evolution was observed, the surgical wound was in good condition, swallowing was adequate, and there was no dysphagia, respiratory symptoms, or signs suggestive of fistulization, nor chest pain or limitations in daily activities.

DISCUSSION

Prolonged retention of a foreign body in the esophagus is an uncommon phenomenon and represents a considerable diagnostic challenge. In most cases, patients with esophageal foreign bodies seek medical attention within the first 72 hours after ingestion, allowing for early identification and removal with minimal complications. However, the case presented highlights the possibility of a prolonged course with nonspecific and progressive symptoms, which can lead to significant diagnostic delay.

The patient described in this report required approximately 18 months to develop significant dysphagia and 20 months to receive a definitive diagnosis. The absence of acute initial symptoms and the lack of a clear history of foreign body ingestion during the clinical interview contributed to the diagnostic difficulty. This phenomenon has been previously documented in the literature, with reports of foreign bodies retained for months or even years before detection[10–12]; however, this is a novel case given the favorable outcome, as the patient did not develop serious complications such as esophageal perforation, mediastinitis, or postoperative stenosis, which are common adverse events in these scenarios. Despite severe fibrosis and the prolonged duration of foreign body retention, postoperative recovery was successful, with no need for additional interventions or long-term complications.

From a clinical standpoint, this case underscores the importance of maintaining a high index of suspicion in patients with chronic dysphagia of undetermined cause, particularly in those with a history of foreign body ingestion, episodes of intoxication, or daily use of dental

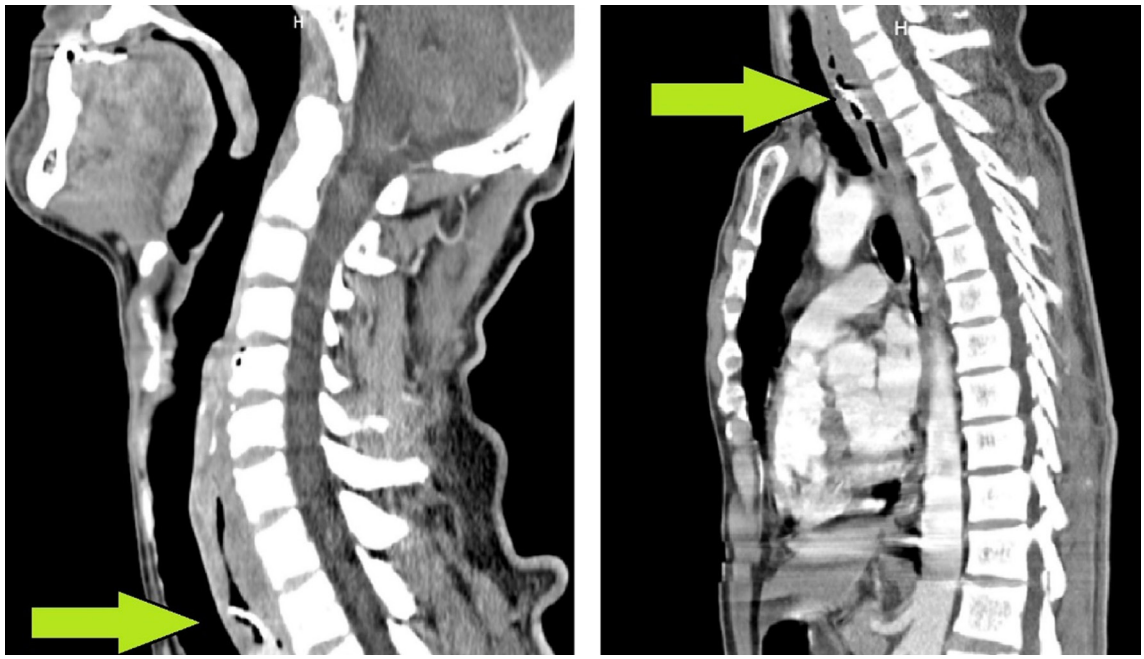


Figure 3. Sagittal CT of the chest and neck. The green arrow indicates a foreign body at the T2 level and significant edema causing esophageal stenosis. Author's file.

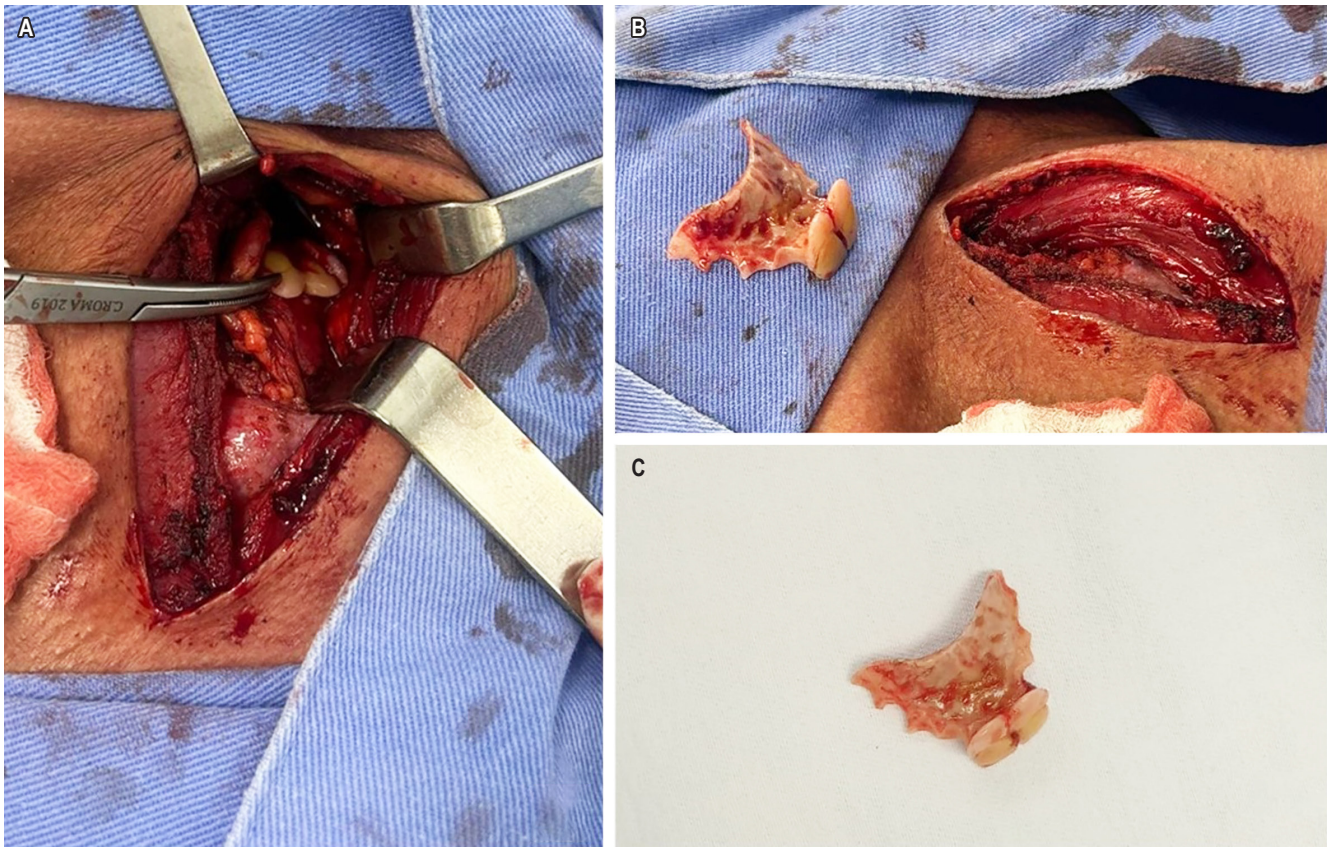


Figure 4. A. Intraoperative view of left cervicotomy and esophagotomy with a foreign body embedded in the esophageal wall. **B** and **C.** Extracted foreign body (dental prosthesis). Author's file.

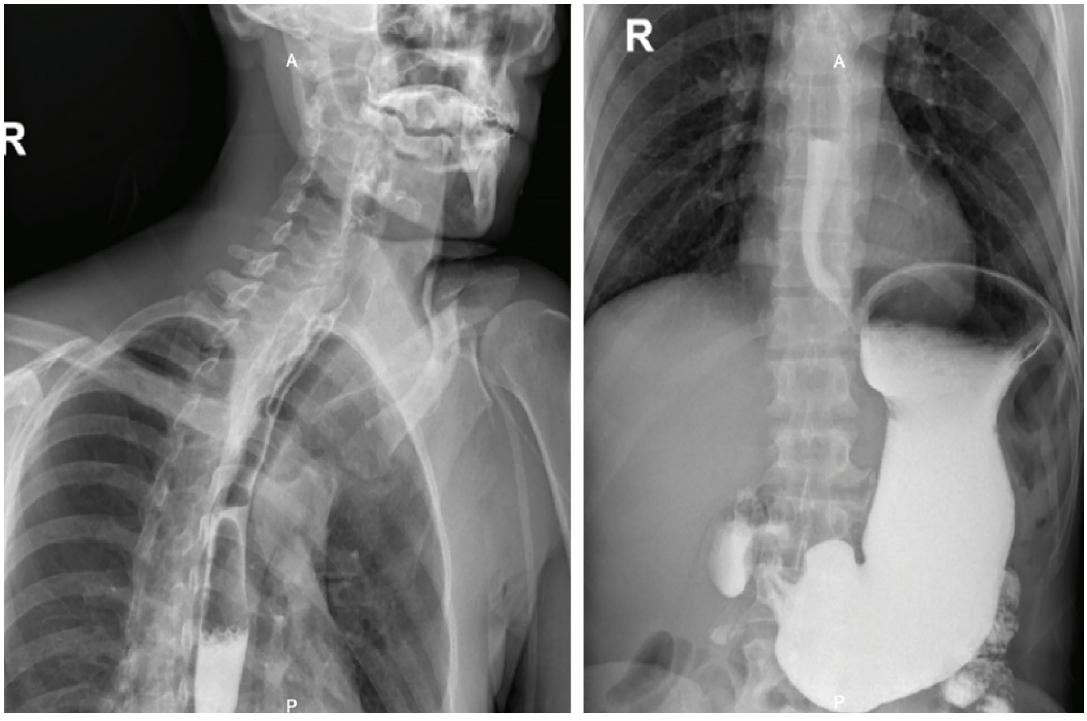


Figure 5. Postoperative esophagogram. Author's file.

prostheses. In this case, imaging studies were essential for establishing the diagnosis, as the prolonged symptomatic course and the unclear history of foreign body ingestion led to multiple delays in reaching a definitive diagnosis. In addition, nonspecific findings on the initial endoscopic examinations were interpreted as nonspecific inflammatory activity and neoplastic masses.

The surgical approach via left cervicotomy and esophagotomy was required due to the location of the foreign body and the severe fibrosis of the surrounding tissue. Although most esophageal foreign bodies can be removed endoscopically[9], this case illustrates the importance of surgical intervention in scenarios where there is suspicion of contained perforation, severe fibrosis, or structural compromise of the esophagus.

CONCLUSION

This case highlights the importance of considering retained foreign bodies in the differential diagnosis of patients with progressive chronic dysphagia. A thorough clinical history, appropriate use of endoscopic and imaging studies, and a multidisciplinary approach are key to early detection and selection of the most appropriate treatment. Although endoscopy remains the method of choice for foreign body removal, surgical intervention continues to be an indispensable alternative in complex cases with structural esophageal involvement. Finally, this case underscores the need to educate patients with risk factors about the importance of seeking early medical attention when foreign body ingestion is suspected, in order to prevent complications and optimize prognosis. It also highlights the relevance of appropriate follow-up to assess postoperative evolution and ensure recovery without sequelae.

Declaration of Conflicts of Interest

The authors declare no conflicts of interest.

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Use of Artificial Intelligence

The ChatGPT tool was used as an aid in drafting the discussion section of the article.

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