

## Visual Diagnosis in Emergency Medicine

### ESOPHAGEAL FOREIGN BODY LEADING TO PERFORATION

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#### CASE REPORT

A 60-year-old man with a history of epilepsy and alcohol use disorder presented to the emergency department (ED) with a week-long history of a sore throat, fever, foreign body sensation, and difficulty swallowing. On further questioning, he related the onset of symptoms to a cupcake he hurriedly ate on Mother's Day. He had previously sought care during this illness course in an ED where he was discharged after a 2-view radiograph of the neck showed no significant soft tissue irregularities or any radiopaque foreign body. The physical examination revealed an afebrile, nontoxic adult male and an unremarkable oropharyngeal examination, including a midline uvula, normal-appearing faucial pillars, a normal jaw opening, and the absence of lesions or evident injuries. Pertinent laboratory values included a white blood cell count of  $11.8 \text{ K/mm}^3$ , lactate of  $1.7 \text{ mmol/L}$ , and negative influenza and respiratory syncytial viral swabs. Deep space infection of the neck was considered, and a computed tomography scan of the neck with intravenous contrast was obtained. This revealed a 5-cm foreign body in the esophagus, with adjacent wall thickening and fat stranding compatible with esophagitis (Figure 1). A gastroenterology consult was requested, and the patient was taken emergently for upper endoscopy. Intraopera-

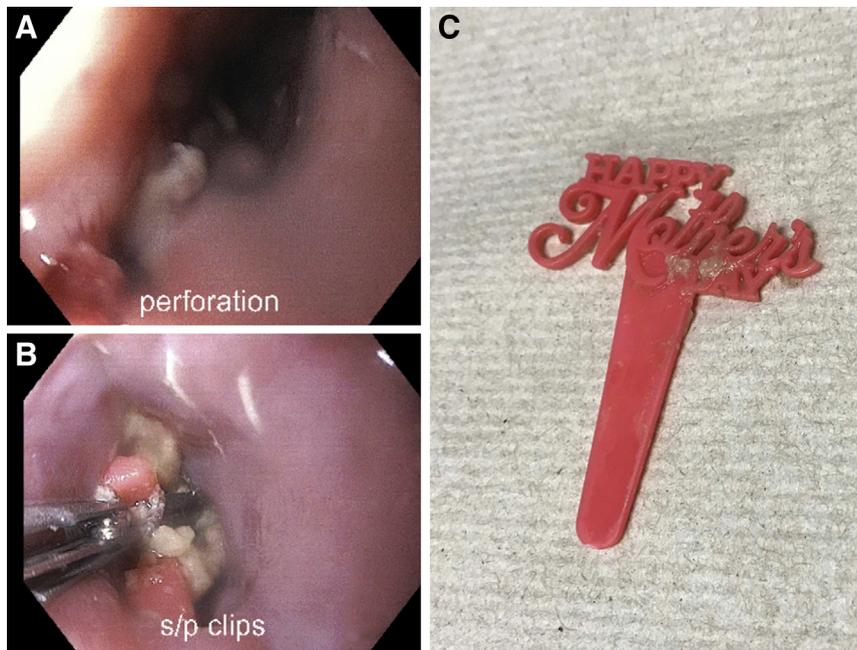
tive findings included a small esophageal perforation (Figures 2A, 2B) and a pink foreign body covered in food debris that was found to be a plastic cupcake topper molded into the words "Happy Mother's Day"



Figure 1. A computed tomography scan of the neck and soft tissue with intravenous contrast, reformatted in the coronal plane. A 5-cm foreign body is lodged in the midesophagus (arrow).

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**Figure 2.** (A) Endoscopic view of the midesophagus showing a wall defect representing a small perforation that was (B) repaired with clips. (C) The retrieved foreign body was a plastic, decorative cupcake topper.

(Figure 2C). He was hospitalized for 4 days for persistent dysphagia but was able to consume a regular diet with no modifications by the day of discharge.

## DISCUSSION

Esophageal foreign bodies are a common condition evaluated in EDs. Most occurrences resolve spontaneously; however,  $\leq 10\text{--}20\%$  may require interventional removal and  $\leq 1500$  deaths per year in the United States are attributable to esophageal foreign bodies (1). The majority of esophageal foreign bodies occur in young children, but certain populations of adults are at risk, including those with psychiatric disorders, developmental delays, alcohol use disorder, and incarcerated individuals (1,2). The most feared sequelae is perforation of the esophagus, which most commonly occurs in the cervical esophagus at the level of the cricopharyngeus muscle and has an associated mortality rate of  $\leq 18\%$  (3). While history-taking and a physical examination alone may be sufficient to diagnose esophageal foreign body, diagnostic imaging is helpful when the diagnosis is ambiguous, to evaluate for clinical sequelae (e.g., perforation), or for interventional planning. Radiographs are often the first imaging modality used, but may miss objects such as plastic, fish bones, food boluses, glass, and certain metals (i.e., aluminum) (2,4).

This was the case in our patient, who presumably had the plastic foreign body at his initial presentation. CT with or without intravenous contrast can improve sensitivity to around 90% (3). Oral contrast is not recommended because of the risk for aspiration as well as potentially complicating any subsequent endoscopic procedures (2). Lastly, an association has been described between esophageal impactions and national cultural holidays, which is likely because of dietary modifications and the consumption of larger meals (5). However, Mother's Day specifically is not known to have this apparent association.

## REFERENCES

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