

A Tough Pill to Swallow: Esophageal Perforation After Ingestion of a Blister Pack

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CASE REPORT

A 70-year-old woman presented to the emergency department with acute onset odynophagia after ingestion of a diphenhydramine 25 mg tablet. On initial presentation, she noted spontaneous resolution of her symptoms, tolerated oral intake, and was discharged home with ambulatory follow-up. Five days later, she presented to the gastroenterology clinic with progressive odynophagia, dysphagia with solid foods, and a 24-hour history of fever. She tolerated liquids and oral secretions without issue. Physical examination was unrevealing. A non-contrast computed tomography of the neck and chest identified a metallic foreign body lodged in the esophagus with a possible esophageal perforation at the level of the aortic arch (Figure 1). Esophagogastroduodenoscopy revealed a metallic foreign body 20 cm from the mouth (Figure 2). Rat-toothed forceps were used to retrieve the object, which was identified as a medication blister pack containing an intact diphenhydramine 25 mg tablet (Figure 3). Removal of the blister pack revealed a contained esophageal perforation. The patient was treated with empiric ampicillin/sulbactam, intravenous fluid hydration, and nil per os for several days. Follow-up esophagram demonstrated interval healing of the perforation. Her symptoms resolved, and her diet was advanced without complications.

Foreign body ingestion is a relatively common clinical presentation, although less than 1 percent of cases result in gastrointestinal tract perforation. A systematic review identified 15 case reports of gastrointestinal perforation due to medication blister packs, most commonly occurring at the ileum and esophagus. Most patients presented with odynophagia, retrosternal chest pain,



Figure 1. Axial computed tomography image demonstrating an esophageal foreign body with a contained esophageal perforation at the level of the aortic notch.

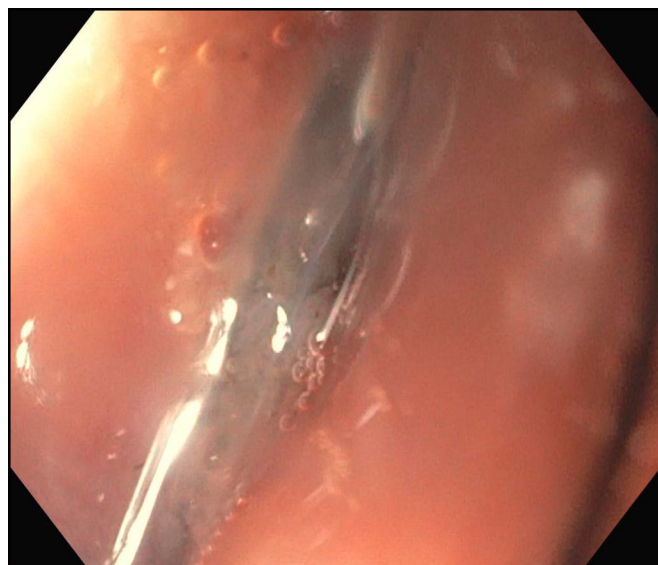


Figure 2. Endoscopic view of a metallic foreign body embedded in the wall of the esophagus 20 cm from the mouth.



Figure 3. After rat-toothed forceps extraction, the foreign body was identified as a blister pack containing an intact diphenhydramine 25 mg tablet.

abdominal pain, or fever.¹ Plain film or barium-contrasted radiographs may be sufficient for diagnosis of a retained blister pack, but computed tomography scan may be more useful to identify the level and extent of injury while visualizing the characteristic appearance of the metallic backing and air-filled capsule containing the medication.² Complete esophageal perforation has a mortality rate of >20% because of the potential for necrotic mediastinitis. Complete perforation classically requires surgical consultation for primary closure, esophagectomy, or cervical exclusion along with mediastinal or peritoneal washout and antibiotics.³ Alternatively, the use of fully covered self-expandable metal stents has been demonstrated at a case series level for successful treatment of spontaneous, iatrogenic, or other causes of esophageal perforation in select patient populations.⁴ Alternatively, contained esophageal perforations can be treated with

endoscopic retrieval of any inciting foreign body, broad-spectrum antibiotics to prevent mediastinitis, and esophageal rest.⁵ Follow-up imaging for healing or sequelae is recommended.²

DISCLOSURES

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Informed consent was obtained for this case report.

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