

Desiccant-Induced Esophageal Obstruction: An Emerging Patient Safety Issue

Jodie A. Barkin, MD, and Jamie S. Barkin, MD, MACG

Department of Medicine, Division of Gastroenterology, University of Miami, Leonard M. Miller School of Medicine, Miami, FL

Case Report

A desiccant is a hygroscopic substance that absorbs water to preserve and protect products from the effects of moisture over time, often used with supplements and medications. They may have similar appearance, size, and shape to the desired medication or supplement. We present a case of an esophageal foreign body obstruction caused by unintentional ingestion of a desiccant. A 75-year-old man with history of GERD complicated by esophageal stricture presented with 24 hours of solid-phase dysphagia, which began after taking vitamins without any unusual ingestion. Upper endoscopy revealed a cylindrically shaped foreign body in the distal esophagus, approximately 2.0 x 1.0 x 1.0 cm in size, which was removed with a Roth net (US Endoscopy, Mentor, OH) and identified as a pill bottle desiccant (Figure 1). An underlying distal esophageal stricture was discovered and dilated with resolution of symptoms.

This is the first reported case of esophageal obstruction due to accidental desiccant ingestion. Two reports of 3 total cases of pill bottle desiccants causing gastrointestinal obstruction exist in the literature, resulting in 2 partial mechanical obstructions in the pylorus due to an underlying organic stricture,¹ and a small bowel obstruction as a de novo presentation of stricturing Crohn's disease.² Clinicians should be vigilant and promote awareness in their patients of the potential for accidental ingestion of a desiccant. Care with ingestion of medications and supplements, combined with proactive interventions such as a change by bottle manufacturers to anchor desiccants to the bottle to prevent accidental ingestion, are warranted to overcome this patient safety issue.



Figure 1. Endoscopic image of a desiccant lodged in the distal esophagus.

Disclosures

Author contributions: JA Barkin completed background research and drafted and edited the manuscript. JS Barkin evaluated the case, drafted, edited, and reviewed the manuscript, and is the article guarantor.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received: September 18, 2014; Accepted: December 5, 2014

References

1. Muhletaler CA, Gerlock AJ Jr, Shull HJ, Adkins RB Jr. The pill bottle desiccant. A cause of partial gastrointestinal obstruction. *JAMA*. 1980;243(19):1921–2.
2. Wu ML, DeVos WC, Flamm SL. Desiccant recovered, Crohn's disease discovered. *Am J Gastroenterol*. 1998;93(12):2595–7.

ACG Case Rep J 2015;2(2):67. doi:10.14309/crj.2015.3. Published online: January 16, 2015.

Correspondence: Jodie A. Barkin, MD, Department of Medicine, Division of Gastroenterology University of Miami, Leonard M. Miller School of Medicine, P.O. Box 016960, Miami, FL 33101-6960 (jabarkin@med.miami.edu).



Copyright: © 2015 Barkin et al. This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0>.