

A case of an unusual esophageal foreign body with a prolonged clinical course

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Abstract

Foreign body impaction of the esophagus can lead to dysphagia, odynophagia, and perforation and should be addressed with urgency to prevent complications. We present a case of a 48-year-old male who ingested a Corona beer cap that subsequently became embedded in the esophagus for 6 weeks with minimal symptoms. The beer cap was removed by endoscopic submucosal dissection with ENT surgery support. The patient suffered a microperforation, which healed spontaneously, and had minimal long-term structural damage. This case outlines our approach to successfully treat an uncommon foreign body impaction, complicated by location, duration of impaction, and presence of a microperforation.

Keywords

Esophageal foreign body; Esophageal impaction; dysphagia; endoscopic submucosal dissection.

Introduction

The ingestion of foreign bodies leading to obstruction is common, and within the GI tract, the esophagus is the most common site of impaction [1]. Foreign body impactions, especially of the esophagus, can lead to pain, dysphagia, odynophagia, and perforation of the esophagus [2]. They should be addressed with relative urgency and caution in order to prevent negative long-term outcomes. In our case, a patient unknowingly ingested a unique foreign body that became lodged in the esophagus for 6 weeks but presented with minimal symptoms. The nature of the foreign object, the time course involved, the mild associated symptoms, and the challenging endoscopic removal make this case unique.

Case Presentation

This case describes a 48-year-old male who presented with dysphagia after an evening of excessive alcohol consumption. The patient reported that he had been “puncturing” and rapidly “chugging” beers,

colloquially known as “shotgunning”, when the pain began. He initially believed that he had swallowed an ice cube and assumed that the issue would shortly resolve, so he did not immediately seek treatment. He also stated that he consumed multiple shots of scotch and tequila, two Moscow mule cocktails, and one Corona Premier beer during the same evening.

His dysphagia and discomfort persisted for several weeks after the initial onset, but because his physician of choice was not available and his symptoms were minimal, he delayed seeking a timely consultation. When the patient arrived 6 weeks later for consultation, an endoscopy was performed, and the side viewing monitor revealed an unusual appearing, unidentifiable foreign object embedded in the proximal esophagus just distal to the upper esophageal. Given his intoxicated state at the time of the incident, he was unable to provide a better history of the potential object.

Given that the foreign object was unrecognizable, the performing gastroenterologist referred him to a tertiary care center for a repeat endoscopy the next day. Endoscopy revealed a metallic object embedded deep in the mucosa of the esophageal wall, just distal to the upper esophageal sphincter. There was no evidence of perforation, and there appeared to be tissue healing adjacent to and encompassing the foreign object. Given the lengthy duration of impaction, the patient was referred to the hospital for a team of gastroenterologists and otolaryngologists to perform advanced dissection at the jagged edge to extract the foreign body from the esophageal musculature.

A third endoscopy, with anesthesia and airway protection, was done for endoscopic submucosal dissection using rat forceps, followed by gentle washing and extraction of the foreign object. During the dissection, the foreign object was identified to be a beer bottle cap (Figure 1). The serrated edge of the bottle cap had been embedded in the esophageal muscularis with the smooth surface projecting into the lumen, causing a partial obstruction. The patient was then extubated and kept NPO following the endoscopy.

ENT surgery was available on backup during the procedure in the event of compromise to the adjacent ENT structures. The patient recovered uneventfully post-procedure, and he did complain of mild throat discomfort afterwards, as expected. A follow up CT esophagram was performed that revealed a region of abnormal thickening in the esophageal wall and a contained leak, suggestive of microperforation.



Figure 1: An image captured during endoscopy of the Corona Premier bottle cap embedded into the esophageal wall. The serrated side of the cap punctured the submucosa of the esophagus, right below the upper esophageal sphincter, and became embedded into the muscularis, with the smooth surface of the cap projecting into the lumen.

The patient was treated with antibiotics and kept NPO, and the microperforation resolved spontaneously. On follow up 4 weeks later, the patient's symptoms had completely resolved, and a repeat esophagram revealed no significant abnormalities. He was followed clinically for another 6 months, and he did not develop any complications or further symptoms that would suggest an esophageal stricture. He is doing well clinically to date.

Discussion

This case outlines the steps we took to successfully treat an uncommon and difficult foreign body impaction. The removal of this foreign body was complicated by location, duration of impaction, depth of impaction, and the presence of a microperforation. Despite the combination of these factors and the microperforation, the long term structural damage of the esophagus was negligible. Even in the case of an unusual swallowed foreign object, several widely accepted practices, such as endoscopy for diagnosis and CT esophagram to evaluate damage after the removal of the object, were employed and successful in this patient [3].

Given the complexity of the impaction, it was also important to have ENT surgery available for support in the event of high risk complications, such as perforation. This required that the endoscopic dissection be conducted at a tertiary care center where ENT surgery was available. In this case, ENT remained on standby and was not needed, but the high risk structures in the area necessitated their availability.

In most cases of swallowed foreign objects, adult patients can correctly identify the ingested object [4]. In this case, the patient was mistaken as to what object he had swallowed. Thus, context from the HPI should be considered when evaluating the potential mechanism of injury. Given the duration of pain in the esophagus, the degree of dysphagia, and the intoxicated state of the patient at the time of injury, his claim of swallowing an ice cube should have been approached with reasonable skepticism; the notion that the patient had swallowed an ice cube led to a delay in him seeking treatment, which further complicated treatment and the nature of the injury. When treating a patient with a foreign body lodged in the esophagus, it is important to maintain a reasonable amount of skepticism on the mechanism of injury and act quickly to address the impaction to prevent further complication.

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