Small Plastic Objects Can Cause Foreign Body Impaction in Normal Adult Esophagus

Navin Paul, MD.
Kaiser Permanente Fresno Medical Center, Fresno, CA.

INTRODUCTION: Foreign body impaction in the esophagus results from an inability of a swallowed object to pass through the esophagus to the stomach. In the United States, food, especially boneless meat, is the most commonly impacted foreign body. When impaction of a foreign body occurs in an adult esophagus, it usually occurs in the presence of underlying structural abnormalities (such as a web or stricture), functional abnormalities resulting from abnormal esophageal peristalsis, or when the swallowed object is too large to navigate the anatomic constictions of the normal esophagus. This report describes two patients who had retained plastic foreign bodies in the esophagus in the presence of a normal esophageal anatomy.

CASE DESCRIPTION/METHODS: Patient 1: A 39 year old man came to emergency room after accidentally swallowing a 2 cm plastic ring. He was able to swallow fluids and oral secretions, but felt a foreign body sensation in his upper chest. He denied any prior dysphagia. On endoscopy, a white plastic ring was seen in the mid-esophagus with no associated esophageal injury. Esophagus was normal with shiny mucosa. With insufflation and gentle prodding with the endoscope, the plastic ring easily passed into the stomach where it was captured using an endoscopic net and retrieved. The patient was discharged home after the procedure. Patient 2: A 53 year old woman presented to the emergency room with history of foreign body sensation and odynophagia localized to mid-chest after drinking an open cup of water. She was able to swallow water and oral secretions, but felt a sharp pain in the mid-chest every time she did so. Although she had seen a foreign body, she was convinced that she had foreign body stuck in her esophagus. Endoscopy showed a thin square piece of plastic measuring about 1 cm in size retained in a normal appearing esophagus with no obvious esophageal injury. It was retrieved using an endoscopic net. She was discharged home after the procedure.

DISCUSSION: This report demonstrates that foreign bodies made of plastic can be retained in the adult esophagus in the absence of traditional risk factors. They can also present with atypical clinical features. The composition of plastic may make it more adherent to the esophageal mucosa thus preventing easy transit through the esophagus, even in the absence of restrictions in the esophagus. This report demonstrates the importance of endoscopic evaluation when a foreign body is suspected, even in the absence of a traditional presentation.

Endoscopic Botulinum Toxin Injection for Tacrolimus-Induced Achalasia in a Renal Transplant Recipient
Marilia Campos, MD, Jake Matlock, MD.
Hennepin County Medical Center, Minneapolis, MN.

INTRODUCTION: Multiple medications have been associated with secondary achalasia. Here we present a patient who developed dysphagia 4 days after his renal transplant and was found to have achalasia thought to be due to his tacrolimus; he was successfully treated with botulinum injection. To our knowledge, this is the first case of tacrolimus-induced achalasia ever reported in a renal transplant patient; it is also the first case in a transplant patient to be treated endoscopically with botulinum injection.

CASE DESCRIPTION/METHODS: A 56 year old man with a history of end stage renal disease secondary to focal segmental glomerulosclerosis presented with progressive renal failure and underwent deceased kidney transplant without complications. At clinic, follow-up on post-operative day #4, the patient reported difficulty in swallowing since post-operative day two. A modified barium
swallow study (Figure 1) demonstrated severe esophageal dysmotility and lower esophageal sphincter dysfunction concerning for achalasia. Upper endoscopy (Figure 2) one week later revealed a dilated esophagus with mild edema but without focal lesions or ulcerations. Esophageal manometry (Figure 3) evidenced outflow obstruction of the esophagogastric junction and weak peristalsis in the esophageal body, confirming the diagnosis of achalasia. Surgical therapy and changing his calcineurin inhibitor for achalasia were considered too high risk in this patient so shortly after transplant. The patient ultimately underwent therapy with endoscopic botulinum toxin injection (100 units) of the lower esophageal sphincter. He had excellent results with immediate and complete resolution of dysphagia.

DISCUSSION: The proposed mechanism for CNI induced changes in esophageal motility involves inhibition of nitric oxide synthase by CNIs. Nitric oxide (NO) is responsible for esophageal peristalsis as well as relaxation of the lower esophageal sphincter (LES). Although it is unclear why switching between different CNIs would lead to symptom resolution, individual variation in the reaction to the different chemical structures of tacrolimus and cyclosporine has been proposed. Botulinum toxin can be considered as a therapeutic option in those patients who are not candidates for a change in their immunosuppression. To our knowledge, this is the first case of botulinum induced achalasia reported after a kidney transplant and also the first successfully treated with botulinum toxin injection.

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Acute Esophageal Necrosis (Gurvits Syndrome) in a 78-Year-Old Male Filipino Patient
Ma Charisse P. Menchavez, MD, Karen S. Batoctoy, MD.
Cebu Velez General Hospital, Cebu City, Cebu, Philippines.

INTRODUCTION: Acute Esophageal Necrosis (AEN), also known as Gurvits Syndrome and commonly referred to as Black Esophagus, is a rare life-threatening clinical entity with an estimated prevalence of 1 to 200 in 100,000 and a mortality rate of approximately 30%. Only 88 patients over a span of 40 years have been reported. It is associated with geriatric males, diabetes mellitus, GERD, CKD, hypertension, vascular disease, alcohol abuse, malnourishment, ingestion of caustic agents and some medications. These factors predispose a patient to AEN through hemodynamic compromise, low-flow states, tissue hypoperfusion, corrosive injury and diminished mucosal defenses. Upper GI bleeding is the presenting complaint in around 90% of cases. It is diagnosed on endoscopy where characteristically, a diffuse, circumferential, necrotic esophageal mucosa is seen. The treatment for AEN aims to address the underlying medical illness, maintain and restore hemodynamic stability with intravenous fluid resuscitation and blood transfusions, attain complete esophageal rest, gastric acid suppression and antimicrobials.

CASE DESCRIPTION/METHODS: A 78-year-old Filipino man developed hematemesis on a background of T2DM, hypertension, NSAID use and excessive alcohol use. He had no GI signs or symptoms prior to this episode. Four hours later he became drowsy and confused and was noted to have circumferential necrosis of the esophagus, with purulent exudates.