

Vinyl Glove Ingestion in a Child Causing Gastric Perforation: Rising Awareness

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Accidental ingestion of foreign bodies is frequently observed in the pediatric population.¹ In most cases, these objects pass through the gastrointestinal tract easily, while others can lead to various complications such as bezoars, small intestine obstruction, and potential gastrointestinal perforation.^{2,3} In such cases, diagnosis and management can be particularly challenging in disabled children with low social skills and pica.⁴ Ingestion of plastic gloves can be dangerous, as they can harden and cause perforation.⁴

We report a case of a 9-year-old female with a history of pica, severe intellectual disability, and celiac disease who was admitted to our hospital for vomiting, abdominal pain, and constipation. Her symptoms began about a week ago. She was on a gluten-free diet. There was no history of surgery or trauma. Physical examination found a healthy weight, and it revealed a tender abdomen, mostly in the epigastric region, with no distension or palpable masses. Laboratory investigations showed microcytic anemia (Hb = 10.8 g/dL), leukocytosis (27 510 cells/ μ L), and an elevated C-reactive protein (20 mg/dL). Ultrasound was interpreted as normal. Given the discordance between clinical findings and radiology, a computed abdominal tomography scan was performed, which revealed gastric perforation due to a bezoar, complicated by peritonitis. The patient underwent an urgent midline supraumbilical laparotomy. The exploration found a gastric perforation near the duodenum with a diameter of about 1 cm, which was easily sutured. A gastrotomy was performed to extract the ingested bezoar with a 5-cm-long axis, which turned out to be a calcified vinyl glove (Figure 1). The unfolding of the intestines was normal. The postoperative course was uneventful.

The ingestion of indigestible objects is commonly observed in medical practice, particularly in children.^{1,5} Pica refers to the compulsion to eat non-food items, which can have life-threatening consequences.⁶ The overall risk of intestinal perforation was reported to be less than 1%.^{1, 7} The most common sites of perforation are the ileum, followed by the recto sigmoid colon.⁸ One of the main reasons for the rarity of our case is that gastric perforation is not a typical site for perforation.⁹ Pica associated with celiac disease has been reported only once in the literature, and individuals with this association require careful assessment before the diagnosis is made.¹⁰ Management of an acute abdomen in intellectually disabled children can be very challenging. In such cases, a plain abdominal x-ray should be considered.¹¹ Ingestion of vinyl gloves can be very dangerous and cause perforation. The caretakers should always monitor the accessibility of such items in individuals with intellectual disabilities and those with pica.

Surgical extraction is recommended as the best option for the treatment of this condition. Initially pliable and soft, a vinyl glove can become hard and form sharp edges after ingestion due to chemical transformation upon contact with gastric acid.^{4,12} In this case, attempting to extract the swallowed objects by esophagogastroduodenoscopy could be very dangerous, potentially causing bleeding and perforation.⁴ Recently, laparoscopy has been found to be a safe and effective alternative to laparotomy, facilitating the management of foreign bodies.⁴

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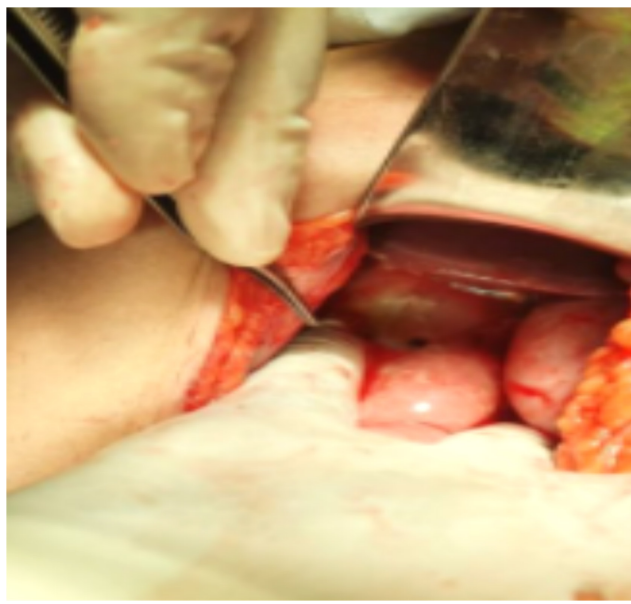


Figure 1. Perioperative view of the gastric perforation.

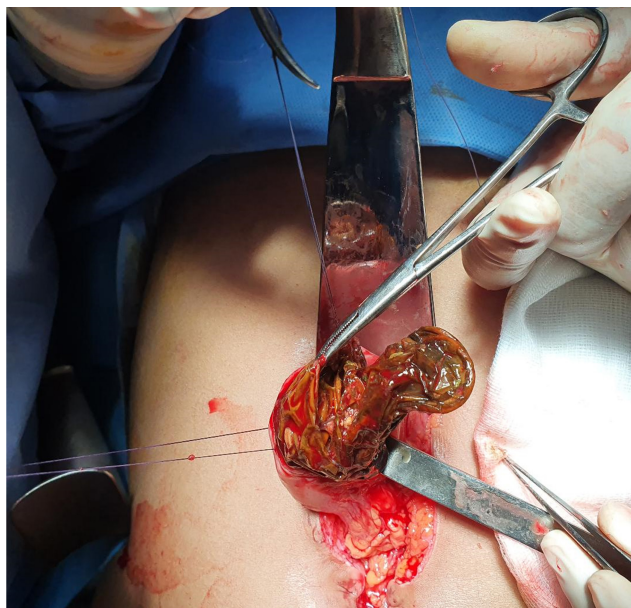


Figure 2. Perioperative view extraction of a vinyl glove via gastrotomy.



Figure 3. Perioperative view of the extracted glove.

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