

Fecalith Causing Mechanical Bowel Obstruction Managed with Intracorporeal Lithotripsy

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Case Report

An 87-year-old man with a past medical history of type II diabetes mellitus, pericarditis, peripheral vascular disease, and atrial fibrillation was admitted to the hospital with malnutrition, pneumonia, abdominal distention, and fecal incontinence. An abdominal computed tomography (CT) revealed an impacted calcified fecaloid (6 x 10 cm) at rectum and dilated small and large intestines (cecum diameter 8.5 cm; Figure 1 and Figure 2). A rectoscopy showed a large fecalith causing a large



Figure 1. Abdominal CT showing small and large intestinal obstruction caused by a calcified rectal fecalith.

rectal ulceration and distention of the proximal colon (Figure 3). The rock-hard fecalith could not be broken down and removed endoscopically. In the operation room, the fecalith was fragmented with an intracorporeal pneumatic/ultrasound lithotripter (Swiss Lithoclast; EMS Electro Medical Systems SA, Nyon, Switzerland) introduced through the anal canal. The weight of the removed fecalith fragments was 190 g (Figure 4). Abdominal distention improved after removal of the fecalith.



Figure 2. Pelvic CT showing the rectal fecalith.

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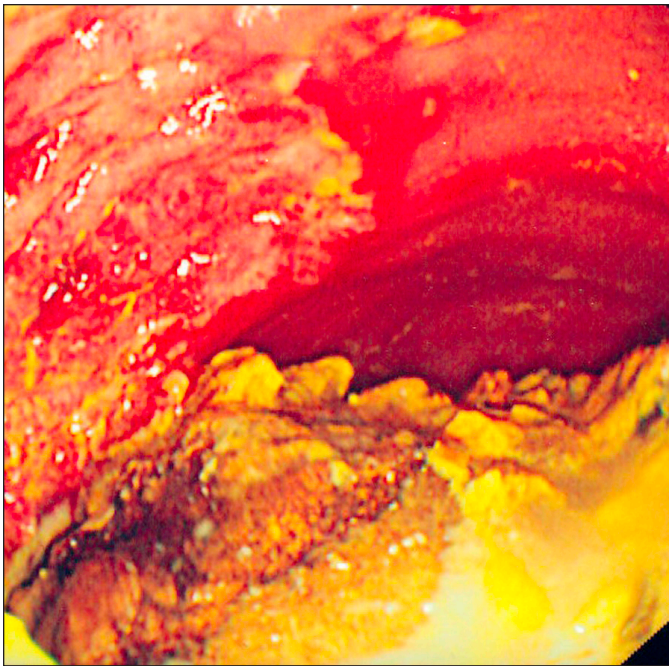


Figure 3. Endoscopic image showing large rectal fecalith with mucosal ulceration.

Fecaliths are common in clinical practice. However, severe complications such as hemorrhage, perforation, intussusception and bowel obstruction are not common.¹⁻³ The degree of calcification and presence of solid materials determine the hardness of a fecalith. Patients with a fecalith are usually managed conservatively with digital disimpaction, low-residue diet, administration of enemas and laxatives. If these do not work, the fecalith can be broken down with colonoscopic methods such as water jet and mechanical lithotripsy prior to surgical removal.

Although reports of colonic obstruction due to fecal impaction are rare, simultaneous colonic and small intestinal obstruction secondary to a giant rectal fecalith has not been previously reported. Management of a large calcified fecalith can be challenging due to the size and consistency. Although intracorporeal lithotripsy is commonly used in urologic practice, electrohydraulic lithotripsy to fragment a fecalith was only reported once in the literature.⁴ Given the fact that anal dilation and removal of the fecalith has the potential to cause anal sphincter injury requiring surgical repair, we pursued with intracorporeal lithotripsy to fragment the fecalith into small pieces that could be removed through the anal canal without injuring the sphincter. This is an uncommon pre-



Figure 4. Fecalith after fragmentation with intracorporeal lithotripsy. Total weight was 190 g.

sentation of a common condition, which was managed with an instrument that is not very familiar to gastroenterologists.

Disclosures

Author contributions: T. Attila wrote the article and is the article guarantor. B. Kabaoglu, T. Koymen, and ZU Kabaoglu edited the article.

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The patient is deceased, and multiple attempts to contact the patient's next of kin for informed consent were unsuccessful.

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