

Endoscopic removal of a bladder calculus via flexible sigmoidoscopy



Figure 1 Computed tomographic scan of the pelvis, demonstrating a stone in the urinary bladder (arrow).

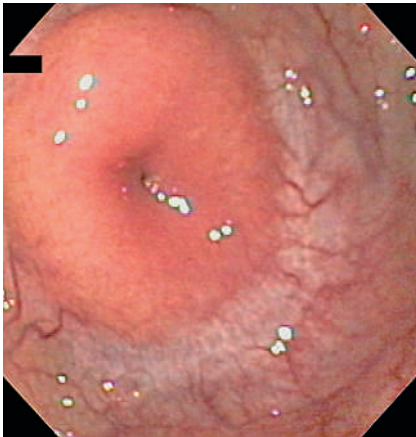


Figure 2 Ileocolonic anastomosis identified in the distal sigmoid colon.

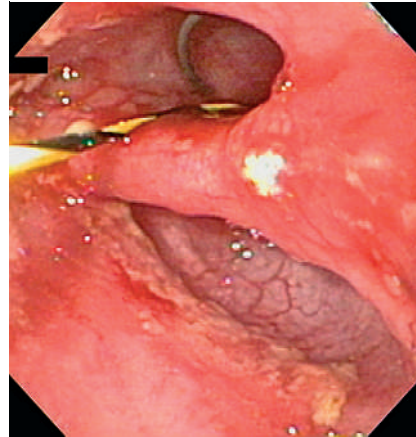


Figure 3 Ileocolonic anastomosis following balloon dilation.

A 51-year-old female with a complex urologic history was admitted to our institution with severe, lower midline abdominal pain radiating into the pelvis. She stated that the pain was reminiscent of the pain she experienced with prior bladder calculi.

Her history was significant for epispadias status post multiple attempted reconstructions, which ultimately led to closure of the bladder neck and subsequent urinary bladder–ileum–sigmoid colon anastomosis. This produced a successful continent urinary diversion, but she experienced recurrent urinary tract infections and bladder calculi.

On computed tomographic scan of the abdomen and pelvis, a stone was observed in the bladder (● **Figure 1**). Because of her complex surgical history and obesity, a nonsurgical means of stone removal was sought. A gastroenterology consultation was obtained for possible endoscopic removal.

In the operating room under general anesthesia and in the dorsal lithotomy position, a standard upper endoscope was used to perform a flexible sigmoidoscopy. In the distal sigmoid colon, the anastomosis was identified and dilated using a Microvasive® balloon (Boston Scientific, Natick, Massachusetts) over a guide wire (● **Figure 2** and ● **Figure 3**). The anastomosis



Figure 4 Stone captured with retrieval basket in the urinary bladder.

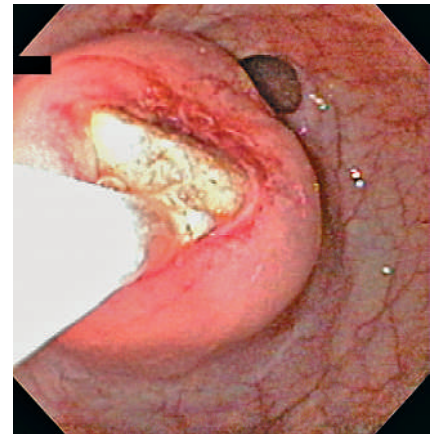


Figure 5 Stone removed through the ileocolonic anastomosis.

was estimated to have a diameter of approximately 6 mm, and was subsequently dilated to 10 mm. Following dilation, the endoscope was advanced through the segment of ileum and into the bladder. In the bladder a 15-mm stone was identified and retrieved (● **Figure 4** and ● **Figure 5**) with a Roth® retrieval net (US Endoscopy, Mentor, Ohio). The patient tolerated the procedure well. At 4-month follow-up, the stone had not recurred.

Urinary diversions using a portion of bowel are performed for malignant and benign disorders of the lower genitourinary tract. Gastroenterologists should be familiar with urinary diversions, as some are associated with an increased risk of colorectal adenocarcinoma, such as with ureterosigmoidal anastomoses [1,2]. Despite an exhaustive search of medical and surgical literature, the description of a similar procedure was not found. This case demonstrates the feasibility of removal of a bladder calculus by gastrointestinal endoscopy in a patient with unusual anatomy, and highlights the impor-

tance of teamwork among specialists in the care of complex patients.

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Bibliography

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