

Sigmoid Diverticulitis Complicated by Colovesical Fistula Presenting with Pneumaturia

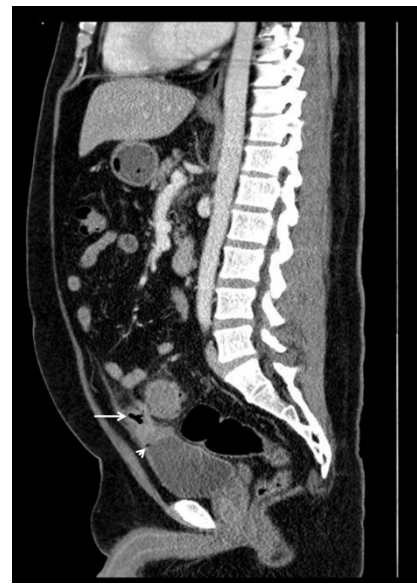
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History of present illness: A previously healthy 39-year-old male presented to the emergency department with six weeks of suprapubic pain and dysuria. He also reported passing air with his urine over the last several days. The patient was afebrile with otherwise unremarkable vital signs. Of note, he had two prior urgent care visits where he was diagnosed with simple urinary tract infections (UTIs) and subsequently prostatitis, both of which have not resolved with two separate courses of antibiotics. His exam was significant for mild suprapubic tenderness, without rebound or guarding, and an unremarkable genitourinary exam of a circumcised male. Laboratories were significant for an abnormal urinalysis, indicating infection. Given his history of persistent symptoms despite antibiotics, the infrequency of UTIs in healthy adult circumcised males, and the presence of pneumaturia, a computed tomography (CT) scan of the abdomen and pelvis was ordered.

Significant findings: A CT scan of his abdomen/pelvis shows acute sigmoid colonic diverticulitis with adjacent extraluminal collection containing gas (axial view, white arrow) consistent with perforation, along with abutment of the urinary bladder with intraluminal bladder gas (sagittal and coronal views, white arrowheads) suggesting colovesical fistula.

Discussion: A colovesical fistula (CVF) is an abnormal connection between the colon and urinary bladder.¹ Although uncommon, CVFs can cause significant morbidity and may lead to death, usually secondary to urosepsis.^{1,2} These fistulas are most commonly complications of diverticular disease, inflammatory bowel disease, or cancer.³ Up to 20% of patients with diverticular disease and up to 1% of patients with Crohn's disease are found to have a fistula.^{4,5} Pneumaturia or fecaluria can be seen in up to 90% of patients.⁶ Other presenting signs/symptoms include dysuria, suprapubic pain, frequency, urgency, and rarely, gross hematuria.³ The diagnosis of a colovesical fistula is confirmed by abdominopelvic CT scan with oral or rectal contrast demonstrating air or contrast material in the bladder with adjacent colon and bladder wall thickening. This type of diagnostic imaging has been shown to have a sensitivity of 90 to 100 percent.³

The treatment for CVF is surgical correction usually by general surgery. However, any underlying infection resulting from the CVF should be treated with antibiotics prior to surgery.³ Antibiotic choice should cover colonic flora, usually quinolones, or 3rd generation cephalosporins with metronidazole, or amoxicillin-clavulanate can be used.³

The patient in this case was given antibiotics and admitted to the hospital with general surgery and gastroenterology consultations. Two months later, the patient had a sigmoid colectomy and appeared to have had a full recovery.

Topics: Gastrointestinal, GI, diverticulitis, colovesical, fistula, pneumaturia.

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