Foley catheter through a colovesical fistula: an unusual method of diagnosis

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DESCRIPTION

An 89-year-old woman with a known history of diverticulitis presented to our emergency department (ED) with a few days' history of haematochezia. She had decided to seek medical help after having a severe episode of bloody stool and feeling dizzy. Her vital signs were normal, and her physical examination disclosed mild left lower quadrant tenderness but no peritoneal signs. Given her presentation, she was resuscitated according to protocol, which included the insertion of a Foley catheter by the ED staff. The patient was then taken to the radiology department for a CT scan of the abdomen and pelvis. Afterwards she was brought back to her ED room, where it was noticed that her urine bag contained a dark green, stool-like thick fluid. Upon further examination, the bag did indeed contain loose stool but had no evidence of blood. When her CT scan was reviewed, it was obvious that the patient had a large colovesical fistula which resulted from her diverticular disease, manifested by the passage of the Foley catheter into the colon (figure 1) through the fistulous tract (figure 2). As the patient was not septic and was stable haemodynamically, the Foley's balloon was deflated and the catheter was removed completely. A detailed past medical history revealed that the patient had been treated three times in the past 2 years for urinary

Figure 2 Passage of the Foley catheter from the bladder through the fistulous tract into the colon as indicated by the arrow.

Figure 1 Passage of the Foley catheter through a large colovesical fistula into the colon. The tip of the catheter is indicated by the arrow as visualised in the colon.

tract infections. The patient was admitted and a cystoscopy revealed the site of the fistulous tract. The patient was educated about the natural history of this disease, declined any further intervention and was discharged 2 days after her admission.

Colovesical fistula, a communication between the colon and the urinary bladder, is a known but rare complication of diverticular disease. It can occur secondary to other pathology, including colon or bladder cancer, trauma and Crohn's disease, but the most common reported incidence is in patients with complicated diverticular disease.¹ It is more common in males, probably secondary to the interposition of the uterus between the colon and the bladder; a hysterectomy had been carried out in almost half of reported cases in females. This complication also tends to occur in the elderly, with most patients being over 70 years of age.

Urinary tract infection is a very common presentation and is seen in about 80% of patients. Pneumaturia (passage of gas or air in urine) and fecaluria (passage of stool in urine), while potentially difficult for patients to detect, are also common presentations, reported in 50–100% of this population.²

Diagnosis is based on the clinical history in addition to radiological and diagnostic procedures.

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CT scan is the most sensitive and commonly used imaging study, capable of demonstrating air or contrast material in the bladder, localised thickening of the bladder wall, or an extraluminal gas-containing mass adjacent to the bladder. Cystoscopy is probably the most reliable and sensitive diagnostic procedure, allowing accurate diagnosis and localisation and also biopsy to rule out malignancy. A colonoscopy is also helpful, not for detecting the fistula itself but for assessing the colon status and possible aetiology of the fistula.¹

Historically, and even recently, surgery was recommended for all patients diagnosed with a colovesical fistula, mainly due to

the fear of renal failure and sepsis.² Recently, this treatment has been challenged. Many have observed that patients who refused surgery or were unfit for a surgical procedure at the time of diagnosis, did relatively well compared to those who had surgical intervention.³ Based on such observation, the fact that most patients with colovesical fistula are elderly with multiple co-morbidities, and the knowledge that even surgical management may be unsatisfactory with a complication rate as high as 45%, it seems that offering supportive treatment only is a viable option with surgical intervention reserved for complications including sepsis and severe recurrent urinary tract infections or for improvement of quality of life as determined by the patient. A 5-year follow-up study of patients who had surgical intervention showed that most of the patients died within few years after the procedure from unrelated causes. This study also indicates that these are high-risk patients and questions the need for surgical intervention.⁴

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Learning points

- ▶ Colovesical fistula, a communication between the colon and the urinary bladder, is a known but rare complication of diverticular disease but can occur secondary to other pathology.
- ▶ Colovesical fistula is more common in males and in elderly patients.
- ▶ Urinary tract infection is seen in about 80% of patients, while pneumaturia and fecaluria are reported in 50–100% of patients.
- ▶ Diagnosis is based on the clinical history in addition to radiological and diagnostic procedures, including CT scan, cystoscopy and colonoscopy.
- ▶ Surgery is no longer routinely recommended as most patients are elderly with multiple co-morbidities.

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