Colovesical fistula: A Novel Clinical Presentation

A Stellman, M Bhatia, S Mann

Citation

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Abstract

We report a patient who presented with an altered bowel habit and incidentally described a change in the colour of his urine. The urine was grey in colour and when left to stand there were metallic filings in the sediment. Investigations confirmed a colovesical fistula secondary to sigmoid diverticular disease. The colour change of his urine was due to oral ferrous sulphate passing into the bladder via the fistula. This presentation of colovesical fistula has not been described previously in the literature.

CASE REPORT

A 75-year-old male patient was referred for a colonoscopy to investigate a change in bowel habit. He also described a change in colour of his urine (Figure 1).

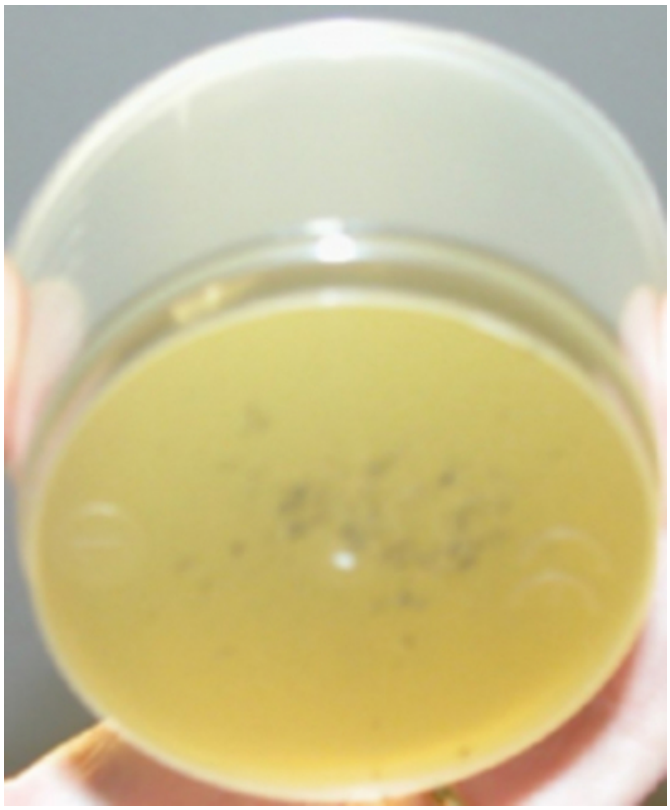
Figure 1

Figure 1: Grey coloured urine specimen.

When the specimen was left to stand there wasgrey sediment (Figure 2).

Figure 2

Figure 2: Urine sediment.



He described urinary frequency up to 15 times daily with nocturia up to 10 times per night. On direct questioning the patient admitted to pneumaturia. He had lost a stone in weight over the previous 3 months. The only gastrointestinal symptom of note was a change in bowel habit with increased stool frequency and a looser consistency. The stool colour was reported to be similar to the colour of the urine. Two

years previously he had undergone an upper and lower GI endoscopy which were apparently normal.

He had a history of hypertension and chronic obstructive pulmonary disease and had smoked 30 cigarettes per day for 60 years. His medications included ramipril and doxasozin.

Abdominal and rectal examinations were unremarkable.

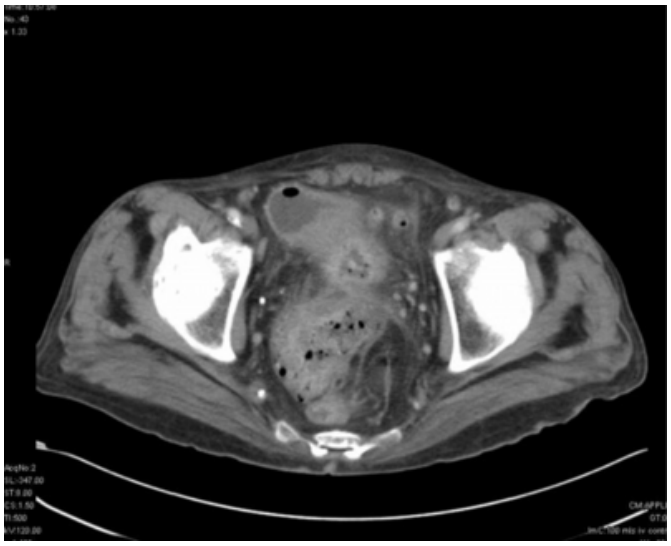
Urine dipstick revealed large amounts of blood and leucocytes. Urine culture confirmed a pyuria with E.Coli >100,000 organism/ml.

He had the following blood abnormalities: Hb 9.8, MCV 86.6fL, WBC 14.0, plt 615, albumin 26g/l, normal renal function and liver function tests.

In view of the clinical suspicion of a colovesical fistula an abdominal CT scan was arranged. This confirmed a colovesical fistula with air in the bladder and severe sigmoid diverticular disease. There was colonic wall thickening and extra-mural inflammatory changes closely apposed to the bladder (Figure 3).

Figure 3

Figure 3: Abdominal CT scan.



The patient declined surgery and opted for conservative management with antibiotics.

After careful review of the patient's drug history the urinary appearances were attributed to ferrous sulphate which he had been taking for a few months in an attempt to correct the anaemia.

DISCUSSION

Recurrent urinary tract infections are the commonest presentation of colovesical fistulae. Less than 50% have the classical pneumaturia and faecaluria which is pathognomonic of a fistula. Diverticular disease is the commonest cause with less frequent causes due to carcinoma, Crohn's disease and post-radiotherapy necrosis. Investigations such as cystoscopy, barium enema and micturating cystogram are often unhelpful due to poor sensitivity [$_1$]. CT scan has a sensitivity approaching 100% with air visible in the bladder, localised thickening of the bladder wall and a demonstrable fistula with an identifiable pathological cause [$_1$]. In the past the Bourne technique utilised a simple test of centrifuging a urine specimen after a barium enema and confirming the presence of radiopaque barium in the sediment using x-ray imaging [$_2$]. Oral dye or iron supplements have not been hitherto used as a diagnostic tool. Treatments have shifted from the 19th century recommendation of ‘Bristol water and ass's milk' [$_3$] to a single stage bowel resection with closure of bladder defect [$_4$].

CORRESPONDENCE TO

Department of Gastroenterology Barnet Hospital Wellhouse Lane Barnet Herts EN5 3DJ UK. Tel: 00 44 8216 4147 e-mail: steve.mann@bcf.nhs.uk

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Author Information

Alice Stellman, MB BS
Department of Gastroenterology, Barnet Hospital UK

Meena Bhatia, MB BS
Department of Gastroenterology, Barnet Hospital UK

Steven Mann, FRCP
Department of Gastroenterology, Barnet Hospital UK