A Rare Case of Rectovesical Fistula Originating from Urothelial Carcinoma of the Bladder

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Introduction

Rectovesical fistula an abnormal connection between the bladder and rectum.

It is a complication that may be caused by laparoscopic surgery, diverticular disease, Crohn's disease, malignant tumor invasion and states of chronic inflammation.

Fistulas occurring as a complication of bladder carcinoma are a rare finding.

Table 1: Laboratory Values

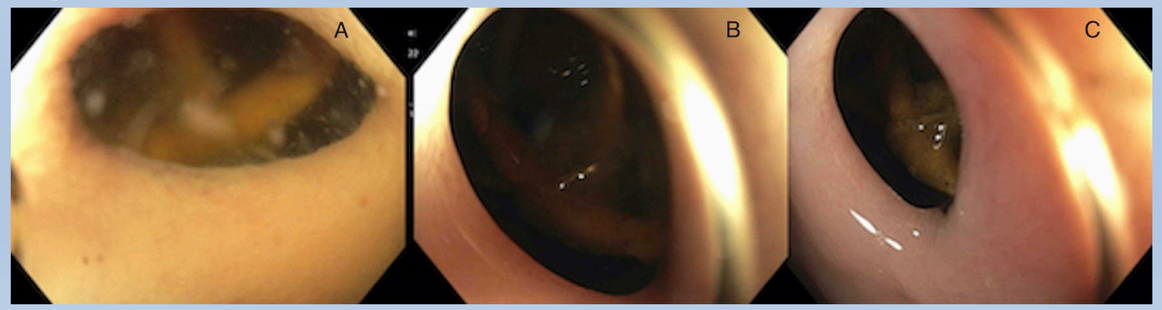
Blood Chemistry	Values	Reference Range
Sodium	139	136 - 145 mmol/L
Potassium	5.7	3.5 - 5.3 mmol/L
Chloride	119	98 - 110 mmol/L
CO2	15	20.0 - 31.0 mmol/L
BUN	23	6.0 - 24.0 mg/dL
Creatinine	1.6	0.6 - 1.2 mg/dL
White blood cell (WBC)	16.40	4.40 - 11.0 10*3/uL
Hemoglobin	8.6	13.5 - 17.5 g/dL
Hematocrit	27.2	38.8 - 50.0%
Platelets	282	150 - 450 10*3/uL

Case Discussion

A 68-year-old-male with a history of diabetes mellitus, coronary artery disease, human immunodeficiency virus, sick sinus syndrome, prostate cancer with transurethral resection and radiation, invasive urothelial cancer, stress incontinence with artificial urinary sphincter, suprapubic catheter, urinary tract infections (UTIs), and bilateral nephrostomy tubes came to the emergency department for watery non bloody diarrhea occurring 10 times daily for 1 month, weight loss and loss of appetite.

- Patient was anuric.
- Vitals were stable on presentation.
- Laboratory values indicated leukocytosis, acidosis, and hyperkalemia (Table 1).
- Urinalysis showed leukocyturia, bacteriuria, hematuria and 3+ leukocyte esterase.
- Urine culture was positive for *Enterococcus faecium* vancomycin-resistant enterococcus (VRE).
- Blood cultures revealed *Enterococcus faecium* VRE and *Escherichia coli.*
- Computed tomography (CT) of abdomen and pelvis without PO or IV contrast was negative.
- Infectious workup of stool including *Clostridium difficile* were negative.
- A decrease in hemoglobin prompted colonoscopy which showed a 40mm rectovesical fistula with a foley seen through the fistula and urine in the rectal vault (Images A/B/C).
- He had urinary diversion with bilateral nephrostomy placement along with diverting colostomy.
- He received palliative radiation for hematuria secondary to bladder cancer with plans for immunotherapy outpatient.

Images A/B/C: Colonoscopy images of a fistula extending from the bladder to the rectum with foley in the bladder.
Image A: Urine is seen in rectum



Discussion

Fistulas occurring from the bladder to the gastrointestinal (GI) tract are rare with 5% of enterovesical fistula from bladder carcinoma, frequently from urothelial carcinoma.

Symptoms include recurrent UTIs, faecaluria, pneumaturia and dysuria. Less commonly, chronic watery diarrhea, melena and hematemesis. CT scan with PO or rectal contrast is the diagnostic test of choice.

Endoscopic examination and cystoscopy can be useful in cases where CT scan is nondiagnostic.

Treatment is individualized to each patient. Common treatments include surgical diversion of urinary and GI tracts as well as surgery.

Moreover, excrement from the GI tract in the form of watery diarrhea can be a misleading symptom of rectovesical fistula in high-risk patients.

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