An unusual urinary tract infection in a healthy young man

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Funding Information
No sources of funding were declared for this study.

Received: 8 June 2017; Revised: 5 September 2017; Accepted: 17 September 2017

Clinical Case Reports 2017; 5(12): 2071–2073
doi: 10.1002/ccr3.1225

Introduction
Urinary tract infections (UTIs) are rarely seen in males; a man with a UTI should have a careful history taken and be closely examined for evidence of an underlying cause, such as previous insertion of urethral catheter or stenosis of the urinary tract. We report a case of UTI in a young man with unique background.

Case History/Examination
A 26-year-old man presented to our emergency department (ED) with fever. He reported 2 days of fever, chills, vomiting, headache, lumbar pain, and joint pains during activity. The day before admission, he had visited a clinic for an influenza test, which was negative. On the day of his visit to the ED, he had been to another clinic, where he again tested negative for influenza and was prescribed oral antibiotics and antifever drug. He reported no significant past medical history and no allergies.

On examination, he was alert and oriented; his vital signs were as follows: heart rate 95 beats per minute, respiratory rate 20 breaths per minute, blood pressure 99/65 mmHg, and temperature 39.4°C. Chest examination revealed no wheezing. The abdomen was soft and distended; there was tenderness in the epigastrium but no rebound tenderness, guarding, or costovertebral angle tenderness. No enlarged organs were detected.

Key Clinical Message
Appearances are deceptive. Prejudice sometimes will betray us. The key to making a diagnosis of infection with unknown focus is a focused interview and thorough physical examination. No special medical care is needed for transgender individuals, although medical staff should be aware that some individuals might have special requirements.

Keywords
Acute medicine, infectious diseases, urology.

Differential diagnosis, investigations, and treatment
Blood test showed no inflammatory results, which may have been caused by previous oral antibiotics, and no explanation for his fever. Chest X-ray showed no pneumonia or other abnormality.

A presumptive diagnosis of sepsis of unknown focus was made, and the patient was started on intravenous ceftriaxone (1 g, 12 hourly) in the ED. After admission to the general ward, he still had a fever and could not urinate on his own. A nurse attempted to insert a urethral Foley catheter but was unsuccessful. Further questioning of the patient revealed that he had undergone gender reassignment from female to male through urethral advancement about 5 years previously. Examination of his genitalia revealed a small penis, labia majora, and no scrotum (Fig. 1); this had not been detected in the ED. A computed tomography scan only showed the distended urinary bladder (Fig. 2). Contrast radiography revealed...
no flow to the urinary bladder and cystoscopy found no true urethra (Fig. 3).

A urologist confirmed that the use of a Foley catheter was inappropriate for this patient; cystostomy was therefore performed. Pyuria was noted when the cystostomy was created. Ceftriaxone was continued as this was considered a complicated UTI. The patient’s high fever remained constant, but he did not report feeling unwell. Urinalysis at admission showed no white cells and no bacteria; and blood and urine cultures were negative. A contrast-enhanced computed tomography scan, conducted on day 8 of admission, revealed no abscess around the kidneys and no other abnormality. These findings confirmed the UTI was not getting worse and that there was no other infection focus, despite the persistent high fever.

**Outcome and follow-up**

The patient’s fever gradually alleviated and ceftriaxone was stopped after 8 days; on day 12, he was discharged with a urinary fistula. He reported that he was due for further treatment under the plastic surgeon who conducted his previous genital surgery. His urinary tract stenosis was treated conservatively, and the fistula was removed about 1 month after discharge. No recurrent fever has been reported by the clinic.

**Discussion**

When a patient with a urethral catheter, or urinary calculi, or other obstruction of the urinary tract has a fever for more than 3 days, a complicated UTI must be considered [1]. UTIs are rarely a cause of infection in men but can occur in the presence of a functional or anatomical abnormality of the urinary tract or in the presence of catheterization [2].

The focus of infection in this patient was unclear at first. However, after a nurse reported to the doctors that the patient’s genitalia appeared atypical, the patient informed us that he had undergone gender reassignment surgery. He was diagnosed with a complicated UTI with urethral stenosis only after his genitalia were physically examined. Genital examination was not performed at first because he was young; genital abnormalities were considered unlikely, and it was thought that the examination may have embarrassed him.

Even if the diagnosis had been delayed, this patient’s clinical course would not have changed, as he received antibiotics for a suspected infection with unknown focus. However, he would have been confidently treated for a UTI earlier if his genitalia had been examined in the ED. The need for a thorough physical examination, including of the genitalia, in individuals with suspected severe infection was reconfirmed by this case.

Metoidioplasty is an alternative phalloplasty technique in female-to-male gender reassignment surgery. Reported postoperative complications include urethral fistulae, urethral strictures, loss of testicular implants, and dislocation of testicular prostheses [3]. Urethral strictures have been seen in up to one-third of cases and UTIs in up to half of
cases [4]. Most strictures are treated with conservative dilatation [3]. Although UTIs in transgender individuals are common, we could find no published case reports of similar infections.

Transgender individuals are sometimes denied medical care and even physically assaulted in public bathrooms because of prejudice [5]. They may, therefore, be less likely to tell medical staff they are transgender, as in this case. Most clinicians lack expertise in transgender health; some may avoid treating transgender patients [5–7]. Doctors, nurses, and other medical staff have to provide care for all patients, regardless of gender identity. Education on providing health care for transgender patients is needed, with clinical training required at all staffing levels [7, 8].

We presented a case of a complicated UTI in a young transgender man. If reviewing a patient with an infection of unknown focus, the key to diagnosis is a thorough history and comprehensive physical examination. The same standards of medical care should be provided to transgender individuals as everyone else.

**Conflict of interest**

The author declares no competing interest.

**Authorship**

YK: drafted and approved the final manuscript.

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