

Inflammation and infection

Case report: Prostatic abscess caused by community acquired methicillin resistant *Staphylococcus aureus*

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ABSTRACT

Prostatic abscess is declining disease because of widespread using of antibiotic in management of early prostatitis and urinary tract infections. Causing pathogenic factors usually gram-negative organisms. In lack of a guidelines, diagnosis and management sometimes is a challenge.

Introduction

Prostatic abscess is uncommon disease in current practice because of judicious use of antibiotics. It may occurs in patient with diabetes mellitus or immunocompromised patients and considered as a complication to these factors in addition to the presence of obstructive uropathy or presence of foreign body.¹ Affected patients usually present with fever, or irritative urinary symptoms or both, and the microorganism detected was most commonly *Neisseria gonorrhoea*. However, many case reports have been published showing occasionally the presence of methicillin resistant *staphylococcus aureus* as a causing organism for prostatic abscess²⁻⁵.

Case report

70-year-old male known case of Diabetes mellitus type II on oral hypoglycemic agents, presented to ER complaining of severe lower back pain with numbness and paresthesia in his left leg that has affected his ability to walk. His pain was moderate to severe in intensity and has aggravated over 1 month that necessitate his coming to emergency. Upon admission patient was vitally stable, neurological examination was normal. Digital rectal exam was normal, and no tenderness has been noticed. Computed tomography has showed L3 and L4 destruction of vertebral bodies, and prostatic abscess measuring 3.1 × 2.5 cm (Fig. 1). Laboratory values: WBS 6000 per microliter of blood, CRP: 120, ESR: 121, PSA: 0.93, blood sugar level was within normal range. Blood and urine cultures has showed Methicillin Resistant *Staphylococcus Aureus* (MRSA). The patient was empirically on Ceftriaxone and Vancomycin before the culture was reported. Trans rectal ultrasound guided aspiration was recommended for the abscess, where collection aspirated and

was sent for culture. Later culture has showed MRSA. Patient followed up over 3 weeks and his back pain was improving, and the plan by infectious diseases team was to complete Vancomycin for 6 weeks. TRUS prostate requested with the aim of investigation for any recollection in prostate but patient has refused. Follow up CT abdomen and pelvis 4 weeks after TRUS aspiration and antibiotic has revealed marked interval regression in abscess size. In follow up appointment patient had no active complaint and symptoms has resolved.

Discussion

Prostatic abscess is a rare disease reported in many articles as a complication for prostate biopsy, perineal injury, uncontrolled diabetes mellitus, immunocompromised patients. The common pathogen causing the abscess is gram-negative organisms.¹ In published case reports the usual presentation was urinary symptoms as dysuria. The modality of imaging that was mostly used was Computed Tomography (CT). Management and follow up is a challenge as there are no guidelines for prostate abscess. Most patients in these case reports were treated with aspiration either trans rectal aspiration or transurethral in addition to parenteral antibiotic administration.²⁻⁵ In one case report patient was started on empiric Intravenous antibiotic without aspiration for the collection.⁵ Patients are usually present with fever, urinary symptoms as dysuria, and difficulty of micturition so the diagnosis is a challenge in absence of obvious cause, and in such case clinical suspicious has guided the treating physicians to investigate for prostatic abscess. Selection of antibiotic usually aimed to cover the common organisms, which are gram – negative and this is another challenge, and as increasingly reporting MRSA as a causing organism for prostatic abscess selection of broad-spectrum antibiotic covering gram positive organism would be

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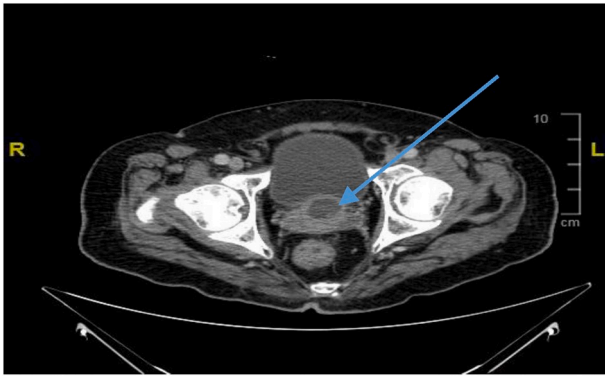


Fig. 1. CT abdomen and pelvis showing prostate abscess measuring size 3.1×2.5 cm.

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