Acute Prostatitis Due to Brucellosis; Report of Two Cases

Bruselloza Bağlı Akut Prostatit; 2 Olgu Sunumu

Brusella Prostatiti / Brucella Prostatitis

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Özet

Bruselloz Türkiye'de endemik bir hastalıktır. Bruselloz, klinik özellikleri belirli bir hastalık değildir ve hemen hemen her organ etkilenebilir. Erkeklerde, genitoüriner yerleşim vakaların %2 -%20'sinde bildirilmiştir. Tek taraflı epididimo-orşit en sık görülen durumdur. Brusella nedeniyle oluşan prostatit çok nadir bir durumdur. Bu makalede brusellozise bağlı iki olgu sunumu yapılmıştır.

Anahtar Kelimeler

Prostatit; Bruselloz

Abstract

Brucellosis is an endemic disease in Turkey. The clinical features of brucellosis are not disease specific; and almost every organ can be affected. In males, genitourinary localization is reported in 2%-20% of cases. Unilateral epididiymo-orchitis is the usual manifestation. Prostatitis due to brucellosis is a very rare condition. In this article we reported two cases exhibit acute prostatitis due to Brucellosis.

Keywords

Prostatitis; Brucellosis

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Introduction

Brucellosis is an endemic disease in Turkey. The incidence of the disease in Turkey is 0.59 per 100.000. The clinical features of brucellosis are not disease specific; and almost every organ can be affected. In men, genitourinary localization is reported in 2%-20% of cases. Unilateral epididiymo-orchitis is the usual manifestation [1]. Prostatitis, pyelonephritis, cystitis, interstitial nephritis, exudative glomerulonephritis, IgA nephropathy and renal abscess are rare complications [2]. In our patients' conditions acute prostatitis was due to Brucellosis.

Case Report

1- A 52 year-old man was admitted to our clinic because of a ten-day history of fever up to 40^{0}C, dysuria, pollakuria and weakness. He also reported that he had been treated with ceftriaxon 1 g twice a day for one week with acute prostatitis diagnosis in another hospital but symptoms were not in regress. In rectal stage of the physical examination tender and hot prostate was palpated. Other systemic examinations were normal. During this stage results of laboratory tests had been found as follows; white blood cell count 7900 per mm3, erythrocyte sedimentation rate 40 mm/h, AST:121 IU/L, ALT:121 IU/L, hepatitis markers were negative, Prostate specific antigen (PSA) was 5.452 ng/ml, urinalysis was normal and blood and urine culture were negative.

Patient had a history of unpasteurized dairy product ingestion so standard brucellosis tube agglutination test was performed and antibodies titers of brucellosis were reported as 1:640 in serum.

Therapy with oral doxycycline (100 mg every12 h) and intravenous ciprofloxacin (400 mg every 12 h) was administered. After 3 days of treatment patient's fever subsided and symptoms were dramatically regressed. PSA was 3.21ng/ml after 4 days of treatment.

Oral ciprofloxacin (500 mg every 12h) and oral doxycycline (100 mg 12 h) were given for prophylaxis for 6 months and the patient was discharged. Three months after cessation of the therapy laboratory tests were as fallows; AST: 17 IU/L, ALT: 21 IU/L, PSA: 0.595 ng/ml, urinalysis was normal and standard brucella tube agglutination titers of brucella antibodies in serum were subsided to 1:160. Prophylaxis treatment carried on for six months and after six months brucella tube agglutination test was negative and all symptoms of the patient were regressed.

2- A 69 year-old man has been hospitalized to Nephrology Clinic because of acute renal failure. He had symptoms as disüri, reduction of urinary calibration, pollakuria, nocturia, urgency, low back pain. In rectal examination tender and hot prostate was palpated. He had dilatations in both kidneys, and prostate enlargenemt with homogenes parenchyma with high residual urine (300cc) at ultrasonography, so urethral catheter inserted. Laboratory tests had been found as follows; white blood cell count 13400 per mm3, erythrocyte sedimentation rate 85 mm/h, blood creatinine:2.08mg/dL, Prostate specific antigen (PSA) was >150ng/ml, urine culture was negative but blood culture was compatible with brucellosis. He had fever up to 380C, other systemic examinations were normal. Tube agglutination test was performed and antibodies titers of brucellosis were reported as 1:320 in serum. Medical therapy with oral doxycycline (100 mg every12 h) and oral rifampicin (600 mg every 24 h) was administered for 6 weeks. One week after initiation of therarpy patient's fever subsided and blood creatinine reduced to 1,29mg/dL. Medical treatment was continued for 6 weeks. After 6 weeks patient PSA value reexamined and 1,07 ng/ml found. TUR-P performed and his pathology reported of BPH. Post operative standard brucella tube agglutination titers of brucella antibodies in serum were subsided to 1:80.

Discussion

Genitourinary complications of brucellosis have rarely been documented in the medical literature; the number of published articles describing cases of prostatitis is scarce [3, 4]. Brucellosis involves many organs and tissue so different clinical aspects can occur and make the diagnosis difficult. Finding brucella organisms in blood culture constitutes diagnosis, and several specimens in blood should always be taken for culture. Testing of the culture takes a long time so presumptive diagnosis of brucellosis can be made via serological testing [5, 6].

Patients with atypical clinical features usually refer to clinics after the use of multiple antibiotics. This situation makes bacterial isolation from serum impossible and the diagnosis difficult to make, so treatment of patients are delayed and this allows chronic disease and recurrences [7].

In first case, patient was treated with ceftriaxon for acute prostatitis before, although symptoms of recovery were not observed. Treatment was then rearranged with doxycycline and ciprofloxacin for brucellosis, considering the previous history of unpasteurized dairy product use. In second case, patient was treated doxycycline and rifampicin.

Human brucellosis is a multi system disease that may present with a broad spectrum of clinical manifestation. The primary goals of therapy for brucellosis are to improve the symptoms, reduce complications and prevent relapses. The choice of a regimen and duration of antimicrobial therapy should be based on the location of disease. Treatment of brucellosis is standardized by the World Health Organization (WHO) as doxycycline (200mg/day) in combination with rifampicin (600-900mg/day) for six weeks. Streptomycin, cotrimaxazol and ciprofloxacin are other drugs that have been found to be successful against brucellosis [8]. Combinations of fluoroqinolone plus rifampin, and fluoroqinolone plus doxycycline were suggested for brucellosis treatment [9]. Fluoroqinolones have good penetration into the prostate so we treated our first patient with a ciprofloxacin (500 mg 12h) plus doxycycline (100 mg 12h) combination. Because the duration of maintenance therapy is unknown in acute prostatitis due to Brucellosis, we adopted a 6 month regimen as suggested with other organ adherences. At the end of maintenance therapy all symptoms had disappeared and there were no relapses found.

Conclusion

Acute prostatitis is a rarely seen complication of Brucellosis. In areas where brucellosis is endemic, it should be kept in mind that acute prostatitis may result from infection with brucella organisms.

Competing interests

The authors declare that they have no competing interests.

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