

A Rare Cause of Lower Urinary Tract Infection in Behçet's Disease: Chronic Prostatitis Caused by *Achromobacter xylosoxidans*

Behçet Hastalığında İdrar Yolu Enfeksiyonunun Nadir Bir Nedeni: *Achromobacter xylosoxidans*'a Bağlı Bir Kronik Prostatit Olgusu

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ABSTRACT Behçet's disease (BD) is a multisystem vasculitis of unknown etiology characterized mainly by recurrent oral aphthous ulceration, genital ulceration, skin lesions and uveitis. Urogenital manifestations other than genital ulceration are rare. We report a case of chronic bacterial prostatitis in a patient with BD receiving immunosuppressive treatment. The causative pathogen was *Achromobacter xylosoxidans* (*A. xylosoxidans*). This organism is opportunistic and usually affects immunocompromised hosts. Clinically reported prostatitis due to *A. Xylosoxidans* is extremely rare.

Key Words: Behcet syndrome; achromobacter denitrificans

ÖZET Behçet hastalığı etyolojisi bilinmeyen, birden fazla sistemi tutabilen, tekrarlayan ağız aftları, genital ülser, cilt tutulumu, kas iskelet sistemi bulguları ve üveit ile karakterize vaskülitik bir sendromdur. Genital ülser dışındaki ürogenital sistem bulguları oldukça nadirdir. Bu olgu sunumunda Behçet hastalığı nedeniyle immünesupresif tedavi alan bir hastada gelişen kronik bakteriyel prostatitli bir hastayı rapor ediyoruz. Etken mikroorganizma olan *Achromobacter Xylosoxidans* kronik prostatitin oldukça nadir görülen fırsatçı etkenlerinden birisi olup, genellikle immün direnci azalmış kişilerde hastalığa neden olmaktadır.

Anahtar Kelimeler: Behçet sendromu; achromobacter denitrificans

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Behçet's disease (BD) is a multisystem vasculitis of unknown etiology characterized mainly by recurrent oral aphthous ulceration, genital ulceration, skin lesions and uveitis.¹ Urogenital manifestations other than genital ulceration are rare. However, epididymitis and sterile urethritis have been reported in 6% and 3% of male patients respectively.² Although, an increased prevalence of prostatitis in patients with BD have been reported in one study,³ there is a considerable lack of evidence concerning an increased urinary tract infections (UTIs).

We report a case of chronic bacterial prostatitis (CBP) in a patient with BD caused by a Gram negative rod bacteria named *Achromobacter xylosoxidans* (*A. xylosoxidans*). This organism is opportunistic and usually affects immunocompromised patients.⁴ It has been shown to cause many infections including peritonitis, chronic otitis media, lung abscess⁵ but reported UTIs with this microorganism are extremely rare.⁵⁻⁷

CASE REPORT

A 42 year old man presented with 3 months history of urinary tract symptoms (UTS), including frequency, urgency, dysuria, nocturia, hesitancy, incomplete emptying of the bladder and urinary incontinence. He was diagnosed as BD 10 years ago according to the oral and genital ulcers, superficial vein thrombosis, and positive pathergy test. He had been on aspirin (ASA) 100mg/day, azathioprine (AZA) 150mg/day and low dose oral prednisolone which had been started 6 months ago for intractable genital ulcers and thrombophlebitis. He was otherwise in good health and denied any systemic complaints. He had an increased C-reactive protein level of 30.04 mg/L. Urinalysis revealed 3-4 leucocytes per high-power field (HPF) but no microorganisms could be isolated from urine cultures. Abdominopelvic ultrasonography, urodynamic evaluation were normal. On digital rectal examination, the prostate was tender. Microscopic examination of the expressed prostatic secretions showed Gram negative rods and approximately 15-16 leukocytes per HPF. Cultures of urethral urine, midstream urine were negative but prostatic secretions obtained by massage yielded heavy growth of *A. xylosoxidans*. Susceptibility study showed that the strain was susceptible to ceftazidime, ciprofloxacin, imipenem, and was resistant to cefotaxime, amikacin and gentamicin. The patient was started on ciprofloxacin (500 mg bid) for 6 weeks. In the follow up, cultures of the prostatic secrets turned negative and clinical improvement was achieved.

DISCUSSION

In this report we presented a case of CBP in a patient with BD. The patient was on low dose oral corticosteroid (5 mg/day), AZA and ASA treatments which had been started for the recurrent mucocutaneous lesions and superficial thrombophlebitis. AZA (2.5 mg/kg daily p.o.) has been found to be effective in preventing mucocuta-

neous lesions and thrombophlebitis in addition to ocular inflammation and arthritis in a randomised, double-blind and placebo controlled study.⁸ Besides, corticosteroids may be effective in almost all mucocutaneous lesions.⁹ The glucocorticosteroids may affect many aspects of the host defense especially the cellular defense mechanisms.¹⁰ The incidence of infectious complications rises with increasing daily doses given for more than 4 weeks.¹¹ Despite cell-mediated immunity seems not playing an essential role in host defense of UTIs,¹² it has been shown that steroid administration increases the incidence of UTIs and promotes the incidence of UTIs caused by opportunistic pathogens.¹² On the other hand, AZA causes suppression of both cell-mediated and humoral immunity and the combination of AZA with steroids increases the risk of opportunistic infections.¹¹ The presence of lower UTS (mainly irritative) were reported to be higher than healthy controls in patients with Behçet's.¹³ However, it is still unclear whether the incidences of UTIs in these patients are increased. There is only one report revealing a high prevalence of prostatitis in BD,³ but the number of patients in this study was too small to draw conclusions.

A. xylosoxidans is an aerobic, nonfermentative, Gram negative rod which is rarely isolated from clinical material. This organism is opportunistic and usually affects severely immunocompromised patients.⁴ Clinical infections due to *A. xylosoxidans* have been reported in the literature only as isolated case reports or in small series.⁵ To our knowledge there are only 3 reported cases of prostatitis caused by *A. xylosoxidans*: 2 of these cases were reported in patients with unilateral non-gonorrhoeal epididymitis⁶ and the other reported case was associated with prostatic adenocarcinoma.⁵

In conclusion, CBP should not be overlooked in Behçet's patients. Sometimes they can be due to unusual microorganisms because of immunosuppressive agents used in BD.

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