



# Vulvar Chancroid

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## ABSTRACT

*Chancroid is a sexually transmitted infection caused by the Gram-negative bacteria *Haemophilus ducreyi*. The disease manifests as genital ulcerations, which may be accompanied by lymphadenitis. It is widespread in low-resource countries in Africa and can co-occur with human immunodeficiency virus. We present a case of chancroid in patient with *Candida glabrata* vaginitis. There were two major genital ulcers, one of which was a painful ulcer in the left labia major and the other was a painless ulcer in the cervix uteri; she was also found upon examination to have bilateral inguinal lymphadenopathy. *Candida glabrata* was found in vaginal culture. We treated the patient with azithromycin 1 gram orally for 3 days, and fluconazole 150 mg oral and vaginally. This case is very typical of an *H. ducreyi* infection, and physicians should be aware of this type of infection when carrying out routine gynecological examinations.*

**Key words:** *Haemophilus ducreyi, chancroid, genital ulcer, candida glabrata*

## Vulvar Şankroid

### ÖZET

*Şankroid gram negatif bir bakteri olan *Haemophilus Ducreyi* tarafından oluşan cinsel yolla buluşan bir hastalıktır. Hastalık ülserlerle ve buna eşlik eden lenfadenopati ile seyrededir. Düşük ekonomik gelir seviyesine sahip ülkelerde, özellikle Afrika kıtasında human immunodeficiency virus ile birlikte bulunabilir. *Candida glabrata* vaginit olan bir hastada saptadığımız şankroid olgumuzu sunuyoruz. İki adet belirgin genital ülser izlendi, bunlardan sol labia major üzerinde olan ağrılı iken, serviks uteri üzerinde yerleşmiş olanda ağrı bulunmamaktaydı. Ayrıca bilateral inguinal lenfoadenopati saptandı. Vaginal kültürde ise *candida glabrata* üretildi. Hastanın tedavisinde 1 gram/gün oral azithromycin ve 150 mg oral ve vaginal fluconazole kullanıldı. Bu olgu sunumunda tipik olarak *H.Ducreyi* enfeksiyonu anlatılmıştır. Klinisyenlerin bu tür enfeksiyonlar ile rutin jinekolojik muayeneler sırasında karşılaşabileceklerinin farkında olmaları gerekmektedir.*

**Anahtar kelimeler:** *Haemophilus ducreyi, şankroid, candida glabrata*

## INTRODUCTION

Chancroid is a sexually transmitted disease characterized by painful genital ulcers and inguinal lymphadenitis. Chancroid is caused by *Haemophilus ducreyi*, a Gram-negative rod. It is endemic in poor economic regions of Africa and Asia and facilitates the transmission of human immunodeficiency virus (HIV) (1,2). Vaginal ulcers caused by the infection are painful; however, cervical lesions can be painless. *Haemophilus* is thought to-

initiate an infectious process in the genital skin following epidermal microabrasions during sexual intercourse (3). A tender erythematous papule may develop 4-7 days later before progressing to the pustular stage. After 2 days, pustules rupture and form painful ulcers with purulent exudate. Lesions also can occur on the thighs and buttocks. Untreated chancroid persists for months and causes large ulcers and secondary bacterial infections.

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**CASE**

A 37-year-old woman Gravida 3, Parity 2, Abortus 1 was referred to our department because of vulvar pain. For 3 weeks she had been experiencing fatigue, weakness, and severe pain during sexual intercourse. In her physical examination, we found two 2-cm genital ulcers, one of which (Figure 1) was in her left labia major while the other was in her cervix uteri (Figure 3). There was also a small genital ulcer in her posterior fourchette (Figure 1). Typically, vaginal ulcers were painful and had a necrotic yellowish exudative basement. Her cervical ulcer was painless but similar in appearance to the labial ulcer. When we scraped the basement of the both ulcers, there was bleeding. The patient also had painful bilateral inguinal lymphadenitis, and we found a thick, white vaginal discharge, similar in appearance to cottage cheese. Her white blood cell count was 13,000/ $\mu\text{L}$ , erythrocyte sedimentation rate was 30mm/hour, and routine biochemical investigations were in the normal range. Venereal Disease Research Laboratory test, Herpes Simplex Virus type 1 and 2, Hepatitis B Virus surface antigen, Hepatitis C virus and Human immunodeficiency virus test results were all negative. Candida glabrata was found in the vaginal culture, and micro-

scopic examination of the vaginal discharge showed Gram-negative rods. Cervical smear results were normal, and no malignancy was seen. Pelvic ultrasonography showed that the uterus and bilateral ovaries were normal. All other system examinations were normal. Based on our clinical results, we concluded that this patient had chancroid caused by *H. ducreyi*. We treated the patient with azithromycin 1 gram orally for 3 days. We also prescribed oral and vaginal fluconazole 150 mg once per week because of the proliferation of *C. glabrata* in the vaginal culture. All the lesions had healed after 1 week (Figures 2, 4). We did not have the opportunity to isolate *H. ducreyi* from the culture and perform polymerase chain reaction (PCR) analysis.

**DISCUSSION**

*H. ducreyi* infection is rarely seen in our Turkish population and consequently it is not routinely investigated in serology laboratories. For that reason, diagnosis of problems in some patients could be challenging. Definite diagnosis of *H. ducreyi* is difficult because it requires either a positive culture or PCR analysis. PCR has a resolved sensitivity of 95% to 98% and a specificity of 99% for *H. ducreyi* (5). In comparison, culture sensitivity is approximately 75%, but clinical diagnosis is neither sensitive (range, 50% to 75%) nor specific (range, 50% to 75%) (6). The diagnosis of chancroid is challenging even for well-equipped facilities. Most STD treatment centers in the United States do not have the capability of diagnosing chancroid and instead rely on clinical criteria for presumptive diagnosis (7). Unfortunately, PCR-based tests are not commercially available, and our hospital had no PCR facility for *H. Ducreyi*. The Centers for disease control and prevention criteria for a presumptive diagnosis of chancroid are used for reporting and often as a guide for initiation of therapy (8). The diagnosis of chancroid is “definite” if *H. ducreyi* has been isolated from the lesion. A “probable” diagnosis is made if all the following criteria are met (9)

- The patient has one or more painful genital ulcers
- The patient has no evidence of *T. pallidum* infection by darkfield examination of ulcer exudate or by serologic testing (performed at least seven days after onset of ulcers)
- The clinical presentation is typical for chancroid



**Figure.** Two 2cm genital ulcers (1). One is in left labia major, other one is in cervix uteri (3). All lesions healed after one week (2,4).

•A test for HSV performed on the ulcer exudate is negative. Consequently, we made the diagnosis of chancroid on the basis of clinical evaluation. Diagnosis is typically made by the exclusion of genital herpes and syphilis. The differential diagnosis includes syphilis, genital herpes, lymphogranuloma venereum, and granuloma inguinale. Patients with suspected chancroid should be tested for genital herpes, have serologic tests for syphilis and HIV-1, and have a dark-field examination for gonorrhea. Current treatment recommendations for *H. ducreyi* are single-dose azithromycin 1g orally or ceftriaxone 250 mg intramuscularly, ciprofloxacin 500 mg orally twice a day for 3 days, or erythromycin 500 mg orally three times a day for 7 days (9). We prescribed our patient 1 gram azithromycin PO for 3 days. Lesions were healed after 1 week.

*Candida glabrata* infection is also difficult to treat because it is resistant to typical azole-class antifungals. Usually, fluconazoles can only treat half of the *C. glabrata* vaginitis cases. Acute HIV infection may mimic infectious diseases because of nonspecific prodromal signs, such as fatigue, headache, and weakness. Clinicians examine patients carefully and have to check the HIV virus serology C markers. *Candida glabrata* and *H. ducreyi* may be seen in AIDS-immunosuppressed patients, but our patient had no history or any indications that she could be immunosuppressed. Interestingly our patient had both diseases without immunosuppression. *Haemophilus ducreyi* and *C. glabrata* are rarely seen in healthy individuals, and *H. ducreyi* is very rare in our Turkish population. There was no published data. Physicians should be aware that chancroid could be present during a routine gynecological examination. Patients with chancroid should be evaluated for other

sexually transmitted infections at the time of diagnosis and should be re-tested for syphilis and HIV infection 3 months later if the initial test results are negative. Sex partners (i.e., contact within the 10 days preceding symptom onset) of patients with chancroid should be examined and treated even if asymptomatic (4).

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