

A 51 years old male diagnosed with chancroid by simple examination

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Abstract Chancroid is infection caused by *Haemophilus ducreyi*. Diagnosis depends on the identification of *H. Ducreyi* through laboratory cultures. The difficulties of diagnosis causing by rarity of its presentation. This case shows the diagnosis of chancroid with a simple examination. A 51 year old man with painful ulcer in penile shaft. He had unprotected sexual activity with sexual workers. The lesion shows 2-3 mm ulcer with purulent discharge. Gram stain showed gram negative in chains formations. VDRL, TPHA and HIV test were negative. We were given Azithromycin 1 gram single dose, mefenamic acid 500 mg thrice a day and compress normal saline twice per day. Patient had recovery after 3 days. Chancroid is painful ulcer and bacteria enters during sexual intercourse. Laboratory examination like culture of organism and PCR assay are costly and not commonly available. Microscopy examination is simple test and show railroad track. The presumptive criteria for chancroid are one or more painful genital with chancroid typical lesion, *Treponema pallidum* and herpes test are negative. In this case, patient has a painful ulcer with purulent discharge, history unprotected sexual activity with sexual worker, VDRL/TPHA test is negative, Gram-stain show coccobacillus in rail road track and have recovery in 3 days after azithromycin treatment. Simple examination can help doctor to diagnose chancroid especially who work with limited facilities. We can treat as a chancroid when the presumptive is established.

Key words

Chancroid; Gram stain; Railroad track.

Introduction

Chancroid is infection caused by *Haemophilus ducreyi* lead to an erythematous papule and pustule. Patients usually have more than one ulcers with the diameter varies from 1 mm to 2 cm, not indurated, usually tender and painfull.¹ Diagnosis established by culture examination that revealed *H. ducreyi* in ulcer exudate.² Chancroid is a rare disease. Center for Disease Control and Prevention (CDC) reported just 8 cases per 100,000 over the world.³ The difficulties of diagnosis causing by rarity of its

presentation.⁴ Simple examination like Gram-stain of ulcers or bubboes can help to confirm presumptive diagnosis. Gram stain revealed small, Gram-negative coccobacilli arranged in railroad track or school of fish.⁵ This case report show the diagnosis of chancroid with a simple laboratory.

A 51 years old male came to Dermatology and Venereology Outpatient Clinic of University Sebelas Maret Hospital with chief complain painful ulcers in penile shaft one weeks before admissions. One month before, patients had unprotected sexual activity with sexual workers 3 times per 2 weeks for a month First presentation was erythema and slowly progressed to painful ulcers. Previously, the patient consulted to pharmacist and patient was given enbatic ointment used once a day but

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Figure 1 Gram stain showed coccobacillus in railroad track formation.

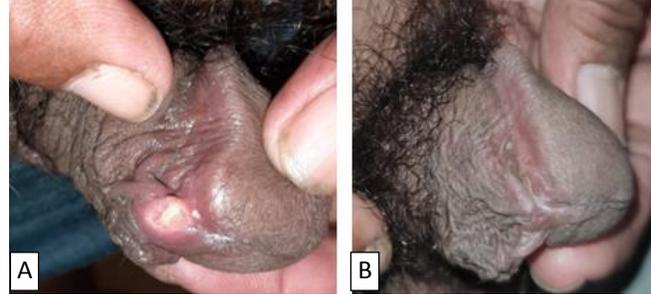


Figure 2. A). The first presentation, ulcer in distal penile shaft; B); no ulcer after 3 days followed up.

without improvement. Fever, discharge, vesicle or history of previous ulcers were denied.

Dermatologic status showed a penile ulcer 2-3 mm with purulent yellowish green discharge. Skin around the ulcer looks inflamed. No necrotic tissue in the ulcer and lymph node enlargement. Gram-stain showed Gram negative coccobacillus in chains formation (**Figure 1**). The VDRL, TPHA and HIV results were negative.

Assessment was chancroid. We were given azithromycin 1 gram single dose, mefenamic acid 500 mg thrice a day and compress normal saline twice per day. Patient had recovery after 3 days (**Figure 2**).

Hemophilus ducreyi is gram negative that cause painful genital ulcers called chancroid.⁶ The disease increases risk for HIV infection causing by *H. ducreyi* disrupt epithelial barriers and recruit CD4+ T cells and promotes increase HIV RNA level.⁷ *H. ducreyi* enters the skin during sexual intercourse. First presentation is painless papule at the site of inoculation several days after exposure develop to solitary or multiple lesions. The pustule become painful ulcer with weeping edges and greyish ulcerated base. Penile shafts, coronal sulcus or foreskin usually affected in men.⁷ Inguinal buboes may be present in several cases. Risk factor for chancroid are uncircumcised men and female sexual worker.⁶

The laboratory examination to establish diagnosis of chancroid are microscopy examination, culture of organism and PCR assays.⁶ The European guideline for the management of chancroid (IUTSI [The International Union against Sexually Transmitted Infection] Europe) recommends nucleic acid amplification techniques (NAAT) for establish the diagnosis of *H. ducreyi*.² Microscopy examination such as railroad track or school of fish have low sensitivity and specificity to establish the diagnosis but several countries use this method such as Czech Republic, France and Greece.^{6,2}

The differential diagnosis of chancroid include HSV and syphilis. Syphilis chancre show painless ulcer, non-purulent with hard and indurated margin.⁶ Infection of HSV show multipel painful vesicle, develop to ulcers.^{7,8} Center for Disease Controls (CDC), World Health Organization and European STI recommendation treatment is single dose azitromycin 1 gram or single dose ceftriaxone 250 mg intramuscular or ciprofloxacin 500 mg orally twice daily for 3 days or erythromycin base 500 mg orally for 7 days.¹ The patient presented with painful ulcer with purulent discharge, the history of unprotected sexual activity with sexual workers. There is no necrotic tissue, lymph node enlargement, the history of vesicle and ulcer before. Differential diagnosis is syphilis. Diagnosis of chancroid was based on history taking, clinical

manifestation and microscopic examination. VDRL/TPHA test showed negative results so the differential diagnosis can be excluded.

Test to establish diagnosis of chancroid is expensive such as culture or PCR examination. Culture and PCR examination has high sensitivity but they can only performed in some laboratory and need more cost. The CDC criteria for probable diagnosis of chancroid are one or more typical lesion of chancroid with painful genital ulcers, *Treponema pallidum* test with darkfield examination or serologic test (performed at least 7 days after onset of ulcers) and herpes examination are negative.⁹ In this case, the patient fulfilled probable criteria such as typical lesion of chancroid with painful genital ulcers, negative test for VDRL/TPHA. We give the patient with Azitromycin 1 gram single dose and patient shows recovery in 3 days. There is no complain and the ulcer is completely dry.

Conclusions

This case highlight the simple examination to help diagnose chancroid. Laboratories such as culture media not only costly but also and only found in central hospital. This simple examination can help the doctor especially those who work with limited facilities. Gram-stain in rail road track formations is the presumptive

diagnosis of chancroid and we can treat the patient as a chancroid patient.

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