

Case Report

Coexistence of chancroid and donovanosis in HIV with low CD4 count: a rare case

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ABSTRACT

Genital ulceration as a syndrome has been associated with increased transmission of HIV. The purpose of the present study is to establish skin diseases as clinical indicators of underlying immune status and help in clinical monitoring by estimating and correlating with low CD4 count. This study concludes that, cutaneous manifestations can be considered as good clinical indicators to predict and assess the underlying immune status and reviews the need to be aware of this entity.

Keywords: Genital ulceration, Chancroid, Donovanosis, Low CD4 count

INTRODUCTION

Genital ulceration as a syndrome has been associated with increased transmission of HIV. Genital ulcer affects primarily genitalia. The genitalia are the most common sites involved in 90% of the cases. The purpose of the present study is to establish skin diseases as clinical indicators of underlying immune status and help in clinical monitoring by estimating and correlating with low CD4 count.¹ Chancroid is the most prevalent form of genital ulcer and sexually transmitted disease caused by Gram negative bacteria *Haemophilus ducreyi*. Chancroid is characterized by necrotizing genital ulcer which may be accompanied by inguinal lymphadenitis or bubo formation.² Donovanosis is a chronic destructive and slowly progressive, mildly contagious disease caused by *Klebsiella granulomatous* and is characterized by granulomatous ulceration affecting primarily the genitalia.³

CASE REPORT

A 45 year female patient was admitted in our care with a characteristic of painful genital ulcers with foul smelling

discharge, pain and swelling in inguinal region. Also had fever and cough since 3 weeks with a characteristic of pain during urination and defecation since 7 days.

On examination showed multiple, soft, granulomatous / necrotizing kissing ulcers present over labia majora, labia minora, clitoris, perianal region which bleeds on touch. Skin around ulcer is edematous, ragged and undermined edge with erythematous base having foul smelling discharge. Another ulcer is present over vulva with exudative discharge. Also on examination bilateral inguinal enlarged matted, tender lymph nodes were present.

Clinical diagnosis & laboratory culture of *Haemophilus ducreyi* were used as "Gold Standards" for the diagnosis of chancroid in the past.^{1,2} Diagnosis of chancroid is basically made on clinical grounds which has an accurate rate of 30-50%.⁵

Direct microscopy examination was performed by collecting the samples in cotton swabs from beneath the undermined edges of ulcers and stained with Gram's and Leishman's stain. Pleomorphic Gram negative

coccobacilli arranged in parallel chains of 2-4 in number which appear as "School of Fish". The organisms are visualized extracellular more often than intracellular and tend to occur in close proximity to polymorphonuclear leucocytes. Large mononuclear cells containing intracytoplasmic vacuoles filled with clusters of donovan bodies are the gold standard for diagnosis of Donovanosis. Biopsy finding shows neutrophils but not malignant cells.

Serological tests showed HIV positive test by Combaids, Triline, Tridot. CD4 count was 94 by Flow cytometry. Complete blood count revealed Hb of 8gm%, Leucocytosis and Neutrophilia, Other tests were done like HCV-Negative, RPR -Non Reactive, HBs Ag-Negative, Sputum for AFB-Negative.

DISCUSSION

In the present case, CD4 count was 94. It shows decline in immune status and delay in healing of genital ulcer underlying HIV infection.^{3,4} There was an inverse relation between the CD4 count and incidence/severity of skin diseases in the HIV/AIDS patients. Cutaneous manifestations can be considered as good clinical indicators to predict and assess the underlying immune status with CD4 count of <200. Patients with advanced HIV infection were found to have significantly more skin disorders than those with early stage HIV. Early recognition of mucocutaneous lesions and associated STD help in better management of HIV/AIDS. There should be universal access to treatment of opportunistic infections especially STD which will not only decrease HIV burden but also improve the quality of life in those already infected.⁵ Center for Disease Control proposes that, a probable diagnosis of chancroid can be made if following are present: One or more painful genital ulcers. Dark field examination of ulcer exudates is negative for *Treponema pallidum*. A-nonreactive serological test for syphilis must be performed at least 7 days after the onset of ulcers. A typical clinical presentation with above

findings suggestive of chancroid along with regional lymphadenopathy. A negative test for herpes simplex virus.

CONCLUSION

In conclusion, a brief unusual and rare presentation of coexistence of chancroid and donovanosis with low CD4 count encountered in the present case showing decline in immune status and delay in healing of genital ulcer underlying HIV infection. Therefore, cutaneous manifestations can be considered as good clinical indicators to predict and assess the underlying immune status.

REFERENCE

1. Krishnam Raju PV, Raghurama Rao G, Ramani TV, Vandana S. Skin Disease: Clinical indicator of immune status in human immunodeficiency virus infection. Int J Dermatol 2005; 4: 646-9.
2. Levis DA, Chancroid: Clinical manifestations, diagnosis and management. Sex Transm Infect 2003; 79:68-71.
3. Jamkhedkarpp, Hira SK, Shroff HJ. Clinicoepidemiologic features of granuloma inguinale in era of acquired immunodeficiency syndrome. Sex Transm Infect 1998; 25:196-200.
4. Balachandran C, Satish Pai.B, Ganesh R. Donovanosis, In: Nusman, DM Thappa, HK Kar, Y.S.Marfatia, Sexually transmitted diseases and HIV/AIDS, 2nd ed, New Delhi, 2011:338-355.
5. Collee JG, Fraser AG, Marimon BP, Simmons A, Mackie, Mc Cartney, Practical Medical Microbiology, 14th ed, Elsevier, New Delhi.

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