

Mucocutaneous manifestations as the first presentations of HIV infection

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Background: Mucocutaneous manifestations may occur in every stage of human immunodeficiency virus (HIV) infection. Some of them may be the first presentations. In this study, we evaluated the prevalence of dermatologic manifestations as the first presentations of HIV / AIDS in 25 Iranian patients.

Method: In a cross sectional study, we evaluated 25 new cases of HIV infection whose HIV infections were diagnosed during work up for their recent dermatological problems. The type of mucocutaneous manifestations and general information such as age, sex, risk factors, dermatologic problem duration and educational level was recorded in a questionnaire.

Result: Warts (anogenital and generalized warts) were the most common cutaneous manifestation in new HIV infected patients (36%) followed by psoriasis and cutaneous abscess.

Conclusion: Some mucocutaneous diseases such as anogenital or generalized warts, psoriasis, and cutaneous abscess may present as the first manifestation of HIV infection.

Keywords: AIDS, genital wart, HIV, mucocutaneous lesion, psoriasis

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INTRODUCTION

Dermatological manifestations may occur in each stage of human immunodeficiency virus (HIV) infection ¹. The prevalence of mucocutaneous problems in HIV infected patients have been estimated approximately 90% ²⁻³. Some of them may be the first signs of HIV infection and may help physicians in early diagnosis of HIV infection ⁴⁻⁵. Although the association of some skin diseases such as Kaposi sarcoma with HIV infection has been documented ⁶, some other cutaneous lesions such as warts, eczema, psoriasis, herpes infection, and non healing ulcers or cutaneous abscesses may be associated with HIV infection ^{5,7-13}.

Based on the increasing prevalence of HIV infected patients and due to the importance of early diagnosis of HIV infection for controlling transmission and more effective treatment in these patients, all physicians and especially dermatologists should

know HIV related mucocutaneous manifestations as well as dermatologic signs that may arouse suspicion to HIV infection.

Although multiple studies have evaluated the prevalence of dermatologic manifestations ^{1,7-8,10-12,14}, only few case reports have been found on dermatological diseases as the first manifestation in a new case of HIV infected patient ¹⁵⁻¹⁷. So, in this study, we evaluated the prevalence of dermatologic manifestations as the first presentation of HIV / AIDS in 25 Iranian patients.

PATIENTS AND METHODS

In a cross sectional study, we evaluated HIV infected patients who were referred to Razi Hospital with a mucocutaneous manifestation in 2011. We selected 25 HIV infected patients whose HIV infections was diagnosed during follow-up for their recent dermatological problems. Therefore,

patients with previously diagnosed HIV infection were excluded. General information such as age, sex, risk factors, dermatologic problem and educational level was recorded in a questionnaire. Patients with 2 HIV ELISA tests were confirmed with western blot. All data was analyzed by SPSS software.

RESULTS

Twenty-five HIV infected patients were evaluated in this study. Their general information is summarized in table 1. The mean age of the patients was 33 ± 5.43 years (ranging from 22-48 years) and their median age was 31 years. The mean duration of mucocutaneous manifestation was 7 months (range: 3 days-24 months). Six patients were positive for hepatitis C virus antibodies.

Mucocutaneous manifestations as the first

Table1. General information of 25 HIV infected patients

General information	frequency	percent
Gender		
Male	22	88%
Female	3	12%
Education		
High school and less	21	84%
University education	4	16%
Risk factors		
Intravenous drug using	14	56%
Heterosexual	11	44%
Homosexual	4	16%
Tattoo	1	4%

Table2. Mucocutaneous manifestations as the first presentation in our HIV infected patients.

Mucocutaneous manifestations	Frequency	percent
Bacillary angiomatosis	1	4%
erythrodermia	1	4%
Anogenital warts	7	28%
Lichen planus	1	4%
Total alopecia	1	4%
Pediculosis + thrush	1	4%
Nail dermatophytosis + seborrheic dermatitis + oral candidiasis	1	4%
Kaposi sarcoma	1	4%
Zoster ophthalmicus	1	4%
Cutaneous abscess	2	8%
Generalized warts	2	8%
psoriasis	3	12%
pruritic papular eruption	1	4%
Severe infected eczema	1	4%
Genital aphthosis	1	4%

presentation in our HIV infected patients are shown in table 2. As this table shows, warts (anogenital and generalized warts) were the most common cutaneous manifestation in HIV infected patients (36%) followed by psoriasis and cutaneous abscess.

DISCUSSION

The results of our study showed that warts (anogenital and generalized warts) were the most common cutaneous manifestation in new HIV infected patients (36%) followed by psoriasis and cutaneous abscess. The most common risk factor for transmission of HIV was intravenous drug use (56%).

Several studies have evaluated the prevalence of dermatologic manifestations in HIV infected patients¹⁷⁻²³. According to these studies, some cutaneous manifestations such as seborrheic dermatitis, psoriasis, Kaposi sarcoma, herpes zoster, herpes simplex, candidiasis, pruritic papular eruptions, and human papillomavirus infection have been introduced as cutaneous markers of HIV infection.

In a Chinese study²⁴ on 348 HIV infected patients, heterosexual transmission was the most common mode of HIV infection (72.99%) and only 16.38% were infected through intravenous drug use whereas in our study, the most prevalent mode of transmission was intravenous drug use. In the Chinese study, 3.73% of the patients were college educated²⁴ whereas 16% of the patients had university education in our study.

In a study by Chopra¹⁶, 604 patients with any kind of mucocutaneous disease were screened for HIV infection. Ninety patients (14.90%) were HIV infected. Among them, 48.89% were males and 81.12% were married. The most common mode of transmission was the heterosexual route (86.6%). The most common infectious diseases were oral candidiasis (32.22%), herpes zoster (13.3%), genital warts (7.77%) and genital herpes (6.66%). In addition, the most common non infectious manifestations were seborrheic dermatitis (8.88%) and pruritic papular eruptions (7.77%). In the present study, the most common route of transmission was intravenous drug use and most of the patients were male (88%). Unlike the results reported by Chopra, genital wart was the most common manifestation in our patients.

In a study designed by Uthayakumar, the most prevalent cutaneous manifestations in HIV infected patients were seborrheic eczema followed by tinea and xerosis¹³. In another study on 796 HIV infected patients¹, candidiasis (25.8%), eczema (19.2%), nodular prurigo (13.8%), dermatophytic infection (10.6%), and herpes zoster (9.4%) were the most common mucocutaneous manifestations in HIV infected patients. Kaposi sarcoma was reported in 0.3%, psoriasis in 0.5%, and condyloma acuminata in 3.1% in a study conducted by Haung¹ whereas warts were the most common dermatologic manifestation at the time of HIV diagnosis in our study.

In some investigations, seborrheic dermatitis has been introduced as an early clinical marker in HIV infection^{1,25}. Although the sample size of our study was small, we can consider warts (generalized or anogenital), psoriasis, and cutaneous abscess as clinical manifestations that may arouse suspicious to HIV infection.

Some studies have reported that the frequency of psoriasis in HIV infected patients is higher than the general population. Rarely, psoriasis may be the first sign of HIV infection. Denovo appearance of psoriasis or sudden worsening of pre-existing psoriasis in a patient with high risk sexual behaviors may be an indication for HIV testing^{17,20-23}.

In summary, we evaluated the prevalence of dermatologic manifestations as the first presentation of HIV/AIDS in 25 Iranian patients and found that warts (anogenital and generalized warts) were the most common cutaneous manifestation in HIV infected patients (36%) followed by psoriasis and cutaneous abscess. However, the small sample size and lack of some information such as the CD4 count in the patients are some limitations in our study. Further studies with larger sample sizes are required to achieve accurate results. In conclusion, some mucocutaneous diseases such as anogenital or generalized warts, psoriasis, and cutaneous abscesses may present as the first manifestation of HIV infection.

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