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Cutaneous Manifestations in HIV Infected Patients in Rural Area

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HIV constitutes major health problem worldwide. Indicator diseases will help in early diagnosis & management of HIV. Cutaneous diseases are common in patients infected with HIV. In many patients skin is the only organ affected throughout the course of disease. The aim of this study is to estimate the prevalence of different skin diseases in HIV infected patients. Retrospective data of 2 years was collected for the study. In the study out of 623 HIV infected patients, 90 patients with at least one skin manifestation were included. Prevalence of HIV in our institutional data is 2%. 14.45% of all HIV infected patients had at least one skin lesion, especially herpes zoster (33.3%), candidiasis (23.3%). Other skin lesions included like Reiter's disease, scabies folliculitis, papillary urticaria constituted 34%. No one had Kaposi's sarcoma and oral hairy leukoplakia. HIV positive patients having skin lesions were found predominantly in male patients of age group 30-40 years. Herpes zoster was found to be the commonest skin infection in HIV infected patients, in contrast to Kaposi's sarcoma & oral candidiasis which are considered as indicator skin diseases .Based on this study it is recommended that all patients with herpes zoster lesion should also be screened for HIV infection.

Key words: HIV, Cutaneous lesions, Herpes zoster.

Human immunodeficiency virus (HIV) infection continues to represent a major challenge and health problem worldwide. In 2009 33.3 million (31.4 -35.3 million) people were living with HIV & AIDS[1]. In 2009 prevalence of HIV infection in Maharashtra ranges from 0.44 to 0.71%.[2] Dermatologic problems occur in more than 90% patients[3]. Many studies have focused on relation of HIV & Kaposi's sarcoma, oral hairy leukoplakia, candidiasis[4, 5]. But other cutaneous manifestations like herpes zoster, papillary urticaria, folliculitis, Reiter's disease are also seen in many HIV positive patients. Cutaneous manifestations, which may be the initial signs of virus-related immuno-suppression, frequently occur in patients who are infected with HIV. Recognizing HIV-related skin changes may lead to the diagnosis of HIV infection in the early stages, which allows initiation of appropriate antiretroviral therapy. Study of cutaneous disease pattern in HIV seropositive patients in particular local area is required for proper care of the patients. In the present study prevalence of various cutaneous manifestations in HIV infected patients were studied.

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METHODS

Retrospective study from March 2009 to April 2011 was conducted. HIV infected patient of age 16 months to 65 years having at least one skin lesion were recruited in the study. HIV reactive patients below 15 months of age were excluded from the study as a positive serologic test doesn't confirms the diagnosis of HIV /AIDS in them. HIV negative patients with skin lesions and HIV positive patients without skin lesions were excluded. Before HIV testing written informed consent of patient was taken. In the study out of 623 HIV infected patients, 90 patients with at least one skin manifestation were included. Patients sample were tested for HIV 1 & HIV 2 antibodies by 3rd generation ELISA or rapid tests using principles like immunochromatography, immunoconcentration, dot immunoassay. Reactive results were confirmed by doing two more tests having different principles.[6] Skin lesions were diagnosed by dermatologist.

RESULTS

During study period 623 HIV positive patients aged between 16 months to 65 years were included. HIV reactivity was predominant in age group of 30-40 years. There were 374 (60.03%) males and 248 (39.81%) females. At least one skin lesion was observed in 90 (14.45%) patients. Various types of skin lesions were observed. (Table No1) Highest was Herpes zoster observed in 30 (33.3%) patients followed by candidiasis in 21 (23.3%) patients In this study none of the patients with Kaposis sarcoma or oral hairy leukoplakia was observed.

Table 1. Analysis of skin lesions in HIV infected patients

S. No.	Skin lesions	No of patients (%)[n=90]
1.	Herpes zoster	30 (33.3)
2.	Candidiasis	21(23.3)
3.	Papillary urticaria	10(11.1)
4.	Folliculitis	6(6.67)
5.	Herpes simplex	6(6.67)
6.	Genital ulcer	6(6.67)
7.	Reiter's disease	3(3.33)
8.	Molluscum contagiosum	2(2.22)
9.	Chronic ulcer	2(2.22)
10.	Hand foot and mouth disease	1(1.11)
11.	SLE with acute exacerbation	1(1.11)
12.	Atypical Hansen	1(1.11)
13.	Paronychia	1(1.11)

DISCUSSION

HIV /AIDS have been reported from all parts of globe with Sub-Saharan Africa and part of Asia as worst affected areas. HIV /AIDS is one of the major cause of death worldwide.[6] Early diagnosis and treatment plays very crucial role in extending duration & quality of life in HIV infected patients. Clinical presentation of HIV infection is known to be complex since AIDS was described in 1981.[4] In our institutional data 2% prevalence of HIV infection was observed. In 2009, the prevalence of HIV infection in Maharashtra ranges from 0.44 to 0.71 %.[2] On this background the prevalence of HIV infection in our institutional data is significantly high.

Skin is the commonest organ affected during most of the course of the disease. As HIV infection progresses skin diseases gradually become more aggressive and widespread

throughout the body. It can be prevented by early diagnosis. In the present study most patients were aged between 30-40 years with male predominance. Huang et al[5] observed same age group & sex predominance of HIV reactivity.

In our study prevalence of cutaneous manifestation was 14.45%. Boniphace et al[4] studied various clinical manifestations in HIV & AIDS, among that 10.3% patients were with skin lesions. The most common skin lesion in our study was Herpes zoster (33.3%). Dehne et al[7] in their study reported 32% herpes zoster cases among HIV infected patients. Sivayathorn et al[8] reported 16.1% herpes zoster lesions in HIV reactive patients. Wiwankit et al[9] & Boniphace et al[4] reported 9.17% & 5% cases of herpes zoster respectively in HIV positive patients. In the light of observation of previous studies compared with this study herpes zoster might be considered as one of the indicator disease for HIV positive patient.

In present study Herpes simplex lesions were seen in 6.66% cases. Similar observation about HSV was reported by Sivayathorn et al.[8]

Second commonest dermatological manifestation was candidiasis (23.3%). Huang et al[5] and Singh et al[3] reported 25.8% & 17.5% of candidiasis in HIV positive patients respectively. It was the same observation in this study.

Muhammad et al[10] observed 7.1 % papillary urticaria & in this study it was found in 11.11% patients. However, due to geographical, environmental and racial differences, the incidence of different types of skin diseases shows variation.[5] In this study cases of Kaposi's sarcoma and oral hairy leukoplakia were not observed. This can be justified by the small sample size. Several studies have reported rare occurrence of these skin lesions in HIV positive patients.[8, 11] Difference in frequencies of skin lesions might be because of changed approaches in clinical management like broader availability of ART and emphasis on prophylactic care of opportunistic infections.

For clinical staging of HIV infected patients correlation of CD_4 count is required. But lacking CD_4 count facilities in health centers remains a challenge. Study of local clinical patterns like skin manifestations in HIV infected patients is useful to ensure effective care without CD_4 count.[4]

In this study we conclude that skin manifestations have high prevalence in HIV infected patients. Amongst these herpes zoster and candidiasis are significant which provide a clue for diagnosis of HIV. This also reiterates the need for thorough skin examination in HIV positive patients for optimal medical care.

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