

Clinico-epidemiological profile of cutaneous manifestations among human immunodeficiency virus positive patients in the sub-Himalayan region

Sir,

Dermatological expressions often provide the first clue to an underlying HIV infection. Skin lesions in this disease are atypical and unresponsive as compared to those occurring in immunocompetent patients.^[1] The purpose of this article is to highlight the cutaneous manifestations of HIV-infected patients who consulted the antiretroviral therapy (ART) center of this referral hospital in the hilly district of Darjeeling.

Three hundred and five new cases who were tested positive for HIV between September 2006 and November 2007, were examined for mucocutaneous lesions. Patients with multiple skin lesions were also tested for HIV by ELISA technique. Skin biopsy was undertaken wherever necessary and essential investigations to diagnose infective disorders were performed. CD4+ counts were estimated by the

Fluorescence-Activated Cell Sorter (FACS) system, based on flow cytometry. Pregnant mothers and children below 18 months were excluded from this study.

HIV positivity was maximum in the age group of 25-34 years with 146 (47.9%) patients and lowest above 45 years where only 15 cases (4.9%) were recorded. Twenty six (8.5%) children below 15 years made up the bulk of pediatric patients. Seventy one respondents (23.3%) in 35-44-year group and 44 persons (14.7%) in 15-24-year category completed the population.

Most of the cases (136 respondents) reported in the late stage of HIV (44.6%) and 35 more (11.5%) had advanced HIV disease. Only 30 patients (9.8%) presented in the early asymptomatic period.

Males (210 cases, 68.9%) outnumbered females (95 cases). Major mode of acquisition of HIV disease was heterosexual (88.7% cases). Fifteen males

admitted to having sex with males while only two in the group were discovered to be chronic intravenous drug abusers.

Majority (11.50%) of patients was in the candidiasis group [Table 1]. Fifteen were diagnosed with idiopathic pruritus after all known itchy diseases were excluded.

Molluscum contagiosum formed the largest group among viral infections and presented with a mean CD4+ cell reading of 98 cells/mm³. Seborrheic dermatitis was found in only 8.5% of our respondents. Fungal and viral sections presented with mean CD4 cell counts below 200 cell/mm³ [Table 1]. Only 33 seropositives did not have any cutaneous features and this group had the highest mean CD4 cell count of 311.24 cell/mm³.

Recent reports^[2] about HIV/AIDS in India mention that most infections are in the productive section

Table 1: Cutaneous diseases and mean CD4 count of the HIV patients

	Fungal group (n = 83)	Viral group (n = 31)	Bacterial group (n = 36)	Parasitic group (n = 28)	Other diseases group (n = 94)
Skin diseases	Candidiasis (35)	Molluscum contagiosum (12)	<i>Staphylococcal aureus</i> infection (14)	Scabies (28)	Malignancies: Kaposi's sarcoma (1) Squamous cell carcinoma (1)
	Dermatophytosis (25)	Herpes zoster (5)	Non- <i>Staphylococcal aureus</i> infection (13)		Spirochaetal diseases: Condyloma lata (2) Primary syphilitic chancre (5)
		Herpes genitalis (5)	Scrofuloderma (2)		Non infective pruritic disease: Seborrheic dermatitis (26) Pruritic papular eruption (23) Idiopathic pruritus (15) Eosinophilic folliculitis (6) Photodermatitis (5) Atopic dermatitis (3) Prurigo (2)
		Herpes labialis (2)	Chancroid (6)		Miscellaneous dis: †PPD (28) Aphthae (6) Lymphadenopathy (5) Discoïd eczema (2) Acne (3) Melasma (10) Alopecia areata (1) Drug reaction (16)
		*OHL (1) Condyloma acuminata (5) Verruca vulgaris (5)	Hansen's disease (1)		
Mean	163.41	177.06	284.22	269.86	252.90
CD4 count/mm ³					

*OHL – Oral hairy leukoplakia; †PPD – Pigmented purpuric dermatosis; Figures in parenthesis indicate number of patients

of 15-44 years, as in this report. HIV/AIDS control programmes are apparently not reaching the efficient age group of this hilly terrain. Ignorance, fear of social segregation preventing many to disclose their ailment and inability of people living in remote places to reach such specialized centers are possibly acting as hindrance for timely consultation. Majority of the affected were males and trend was similar to the national picture.^[2]

Paucity of persons reporting homosexual behaviour as seen among HIV seropositives here has been identified as the cause of rarity of Kaposi's sarcoma among HIV positive individuals in this region.^[3] Candidiasis was the most common mucocutaneous disorder in our HIV cases as observed in other studies in India.^[1] Even after careful clinical scrutiny, we could not find any opportunistic deep fungal infection like cryptococcosis, histoplasmosis and penicilliosis perhaps because this is not an endemic area for these ailments. Pruritic papular eruptions constituted substantial number of patients who presented with intractable pruritus of undefined cause as was observed in south India.^[1] Pruritic papular eruption of HIV was also found to be the commonest cutaneous manifestation in a Western study.^[4] The reason for this type of undiagnosed pruritus in these immunosuppressed patients as seen in this group has been thought to be due to immune dysregulation.^[5]

Low CD4+ count among molluscum contagiosum patients was similar to findings of Goldstein *et al.*^[6] Giant and atypical varieties were seen amongst our population and lesions were commoner on the face. Seborrheic dermatitis is a common disorder in AIDS patients but few cases were recorded in our clinic. Mild and temperate climate of this region is vastly different from hot humid climate where seborrheic dermatitis predominates.

CD4+ counts in cases suffering from viral and fungal diseases were lowest and thus may act as a marker of HIV disease progression. This fact corroborates with a research done in King George Hospital.^[7]

Genital infections indicate an important portal of entry for HIV and chancroid was the principal sexually transmitted infection (STI) among those examined here during this period. Recently, observers^[8] have suggested that herpes simplex virus 2 (HSV-2) causing genital ulcerative disease acts as main risk factor for acquisition of HIV infection.

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