

PATTERN OF MUCOCUTANEOUS MANIFESTATIONS OF HIV INFECTED PATIENTS: A RETROSPECTIVE STUDY

Murugan Swamiappan¹, Vijayabhaskar Chandran², Sindhuja Ramasamy³, Sridhar V⁴, Vanathi Thiyagarajan⁵

¹Assistant Professor, Department of Skin and STD, Chengalpattu Medical College, Chengalpattu.

²Associate Professor, Department of Skin and STD, Chengalpattu Medical College, Chengalpattu.

³Senior Resident, Department of Skin and STD, Chengalpattu Medical College, Chengalpattu.

⁴Senior Resident, Department of Skin and STD, Chengalpattu Medical College, Chengalpattu.

⁵Junior Resident, Department of Skin and STD, Chengalpattu Medical College, Chengalpattu.

ABSTRACT

BACKGROUND

Mucocutaneous manifestations occur in more than 90% of HIV infected patients. These manifestations are an early indicator of the presence of HIV infection and also aids in the clinical staging and prognosis as it reflects the underlying immune status.

AIM

To determine the prevalence and pattern of various mucocutaneous manifestations occurring in people living with HIV (PLHIV).

MATERIALS AND METHODS

A retrospective chart review of the data collected from the clinical records of all HIV seropositive patients, who had attended the Sexually Transmitted Infection (STI) Clinic of Chengalpattu Medical College Hospital, Chengalpattu, Tamil Nadu, during the 3 years period from 2012 to 2015 was carried out. Demographic and clinical data were analysed.

RESULTS

The total number of HIV seropositive patients attended the STI Clinic were 176 during the study period of 3 years from 2012 to 2015. Among that males were 104 (59.1%) and females were 72 (40.9%). The common age group was 35-49 (87 patients, 49.4%). Mucocutaneous manifestations were seen in 117 (66.4%) patients. The most common manifestation seen was candidiasis among infections and seborrheic dermatitis among non-infectious dermatoses.

CONCLUSION

Mucocutaneous manifestations can arouse suspicion of HIV infection in otherwise healthy patients. They can serve as a dependable clinical marker of HIV infection. Awareness of the varied pattern of these manifestations would help in the early diagnosis and management of HIV infection, thereby decreasing the morbidity and improve the quality of life in them.

KEYWORDS

Human Immunodeficiency Virus, Clinical Markers, Oral Candidiasis, Seborrheic Dermatitis, Papular Pruritic Eruptions.

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INTRODUCTION

In India the adult (15–49 years) Human Immunodeficiency Virus (HIV) prevalence has continued its steady decline from an estimated peak of 0.38% in 2001-03 through 0.34% in 2007 and 0.28% in 2012 ever since its recognition in 1986. The total number of people living with HIV is estimated at 21.17 lakhs (17.11 lakhs–26.49 lakhs) with a prevalence of 0.26% (0.22%-0.32%) in 2015.⁽¹⁾ Currently, India has the third largest number of people living with HIV (PLHIV), because of its huge population, even though it has a low HIV prevalence.

Mucocutaneous manifestations are very common in HIV infected individuals and are associated with significant morbidity.

More than 90% of the HIV infected patients develop at least one skin or mucous membrane disease during the course of the infection.⁽²⁻⁴⁾ These manifestations are diverse, which may be infectious or non-infectious, ranging from macular roseola-like rash seen with the acute seroconversion syndrome to extensive end-stage Kaposi sarcoma.

Common infections like candidiasis, dermatophytosis, scabies, pyoderma, etc. could present in the usual way or in various novel atypical presentations occur in increased frequency. Some conditions like penicilliosis, histoplasmosis, cryptococcosis are unique and virtually pathognomonic of HIV disease and may occur as a result of advanced immune-suppression.⁽⁵⁾

Dermatological features acts as clinical markers of HIV infection and also reflects the underlying immune status.⁽⁶⁻⁹⁾ It may be the presenting feature and a valuable clinical tool in staging and predicting progression of the disease.⁽¹⁰⁻¹⁵⁾

AIM

To determine the prevalence and pattern of various mucocutaneous manifestations occurring in people living with HIV (PLHIV).

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Corresponding Author:

Dr. Murugan Swamiappan,

Assistant Professor,

Department of Skin and STD, GST Road,

Chengalpattu Medical College & Hospital,

Chengalpattu- 603001,

Tamilnadu.

E-mail: murugandvl@gmail.com

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MATERIALS AND METHODS

A retrospective chart review of the data collected from the clinical records of all HIV seropositive patients, who had attended the STI Clinic of Chengalpattu Medical College Hospital, Chengalpattu, Tamil Nadu, during the 3 years period from 2012 to 2015 was carried out. The demographic data included age, sex, education, occupation, marital status and sexual behaviour. Mucocutaneous diseases were diagnosed by clinical manifestations by experienced dermatologists. The clinical diagnosis was confirmed with investigations like KOH examination, Tzanck smear, etc. and histopathological evaluation whenever necessary.

RESULTS

The total number of HIV seropositive patients attended the STI clinic were 176 during the study period of 3 years from 2012 to 2015. Among that males were 104 (59.1%) and females were 72 (40.9%). The common age group was 35-49 (87, 49.4%). The demographic characteristics of the study population are shown in Table 1.

Mucocutaneous manifestations were seen in 117 (66.4%) patients. Among the infective dermatoses, the most prevalent infection seen was candidiasis in 34 patients (19.3%). Other infective mucocutaneous manifestations seen were: dermatophytosis 13 (7.4%), pyoderma 12 (6.8%), herpes simplex virus infection 11 (6.3%), human papilloma virus (HPV) infection, 9 (5.1%) and scabies 3 (1.7%). Other infective dermatoses seen were herpes zoster and pityriasis versicolor in 2 (1.1%); primary chancre, scrofuloderma and oral hairy leucoplakia in 1 (0.5%) Table 2.

Seborrheic dermatitis was the most common non-infectious disorder, which was present in 21 (11.9%) patients. Other non-infectious dermatoses seen were papular pruritic eruptions of HIV 15 (8.5%), pigmentary disorders 9 (5.1%), xerosis 8 (4.5%), ichthyosis 4 (2.3%), aphthae 4 (2.3%), pruritus 4 (2.3%), drug reaction 2 (1.1%), alopecia 2 (1.1%), psoriasis 1 (0.5%) and eosinophilic pustular folliculitis 1 (0.5%) Table 3.

Genital herpes was the most common sexually transmitted infection seen in 7 (4.0%) followed by genital wart 6 (3.4%).

Variables		Number of Patients (%)
Age in years	≤ 14	4 (2.7)
	15-24	8 (4.5)
	25-34	53 (30.1)
	35-49	87 (49.4)
	≥ 50	24 (13.6)
Sex	Male	104 (59.1)
	Female	72 (40.9)
Geographical Distribution	Rural	119 (67.6)
	Urban	57 (32.4)
Educational Status	NIL	72 (40.9)
	Upto VIII	64 (36.4)
	VIII & above	36 (20.4)
	Graduate	4 (2.3)
Occupation	Agricultural labourer	3 (1.7)
	House wife	41 (23.3)
	Female sex worker	6 (3.4)
	Petty Business	9 (5.1)
	Truck Driver	12 (6.8)

	Service (Govt./Pvt.)	19 (10.8)
	Hotel staff	9 (5.1)
	Student	2 (1.1)
	Unemployed/retired	12 (6.9)
	Skilled worker	21 (11.9)
	Semi-skilled worker	42 (23.9)
Marital Status	Married	154 (87.5)
	Living with spouse	124 (80.5)
	Widow/separated	30 (19.5)
	Single	22 (12.5)
Promiscuous Behaviour	Present	97 (55.1)
	Absent (Denies)	79 (44.9)

Table 1: Demographic Characteristics of 176 HIV-Infected Patients

Infections	Number of Patients (%)
Oral candidiasis	34 (19.3)
Dermatophytosis	13 (7.4)
Pityriasis versicolor	2 (1.1)
Pyoderma	12 (6.8)
Scrofuloderma	1 (0.5)
Primary chancre	1 (0.5)
Herpes simplex virus infection	11 (6.3)
Human papilloma virus infection	9 (5.1)
Herpes zoster	2 (1.1)
Molluscum contagiosum	2 (1.1)
Oral hairy leucoplakia	1 (0.5)
Scabies	3 (1.7)

Table 2: Pattern of Mucocutaneous Manifestations in HIV Patients - Infectious

Mucocutaneous Manifestations	Number of Patients (%)
Seborrheic dermatitis	21 (11.9)
Papular pruritic eruption of HIV	15 (8.5)
Xerosis	8 (4.5)
Pigmentary disorders	9 (5.1)
Ichthyosis	4 (2.3)
Aphthae	4 (2.3)
Pruritus	4 (2.3)
Drug reaction	2 (1.1)
Alopecia	2 (1.1)
Psoriasis	1 (0.5)
Eosinophilic pustular folliculitis	1 (0.5)

Table 3: Pattern of Mucocutaneous Manifestations in HIV Patients - Non-Infectious

DISCUSSION

During the three-year study period from 2012 to 2015, 176 patients were seen. Male patients were around 1.4 times more than that of female patients. This could be attributed to our socio-cultural factors as females are more conservative and they acquire HIV mainly through their spouses except for few. More number of cases, 79.5% had occurred between the sexually active age group 25-49 years.

Mucocutaneous manifestations were seen in 66.4% patients and they presented with either one or multiple skin problems. Overall, oral candidiasis was the most prevalent mucocutaneous manifestation seen in 19.3% patients. This

finding is consistent with previous studies by Wang J et al, Huang X et al, Munoz-Perez MA et al, Akinboro AO et al and Murugesh SB et al.^(9,16-19) Pseudomembranous type of oral candidiasis was the commonest seen in 11.4% followed by erythematous 6.2% and angular cheilitis 1.7%. The next common infection seen was dermatophytosis in 17.4% patient. The presentation of dermatophytosis was extensive and onychomycosis was seen in 2.3%, the marker of HIV, proximal subungual onychomycosis was not seen in this study. Extensive pityriasis versicolor was seen in 1.1%.

Among the viral infections, Herpes Simplex Virus (HSV) infection was the commonest seen in 6.3% followed by Human Papilloma Virus (HPV) infection in 5.1%. Similarly, genital herpes was the commonest sexually transmitted infection seen in 4.0% and genital wart in 3.4%. The other viral infections seen were herpes zoster, molluscum contagiosum and oral hairy leucoplakia.

Pyodermas, follicular and non-follicular, which were recurrent, persistent and more resistant to treatment, requiring higher doses of antibiotics for prolonged period occurred in 6.8% of patients in our study. Other bacterial infections seen were scrofuloderma and primary chancre.

Scabies was seen in 1.7%, the presentation was widespread sparing the characteristic areas and refractory to treatment, but crusted scabies was not seen in this study.

Among the non-infectious dermatoses, seborrheic dermatitis was the most common disorder seen in 11.9% followed by papular pruritic eruption in 8.5%. Seborrheic dermatitis was found to be the common non-infectious dermatoses by studies done by Munoz-Perez MA et al, Singh H et al and Sharma YK et al^(18,20,21), but studies by Goh BK et al and Chawhan SM et al^(22,23) showed papular pruritic eruption as the common dermatoses. The prevalence of pigmentary disorders in our study was 5.1% and xerosis 4.5%. Oral pigmentation was seen in 3.4%, generalised Addisonian hyperpigmentation in 1.1% and vitiligo in 0.5%. Other non-infectious dermatoses seen were ichthyosis, aphthae and pruritus in 2.3%, drug reaction (morbilliform skin rash) secondary to nevirapine and diffuse hair loss in 1.1%. Eosinophilic pustular folliculitis and psoriasis was seen in 0.5%.

Viral Sexually Transmitted Infections (STIs) were common than the bacterial STIs, genital herpes seen in 4% and genital wart in 3.4%.

Rare and unique dermatological markers of HIV-infection and AIDS defining conditions like cryptococcosis, penicilliosis, histoplasmosis, Kaposi sarcoma, etc. were not seen in this study.

Various studies on the prevalence of dermatological manifestations of HIV were done in the past. This study was done to reemphasize the need for complete mucocutaneous examination and to have a high degree of suspicion and counsel the patients with common typical or atypical, and uncommon skin problems for voluntary HIV testing, thus facilitating in early diagnosis and management, thereby delaying the immunosuppression and improving the quality of life.

CONCLUSION

Mucocutaneous manifestations can arouse suspicion of HIV infection in otherwise healthy patients. They can serve as a dependable marker of HIV infection. Awareness of the varied

pattern of these manifestations would help in the early diagnosis and management of HIV infection, thereby decreasing the morbidity and improve the quality of life in them.

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