of patients with human immunodeficiency virus (HIV) infection. Distinctive skin lesions occur at various WHO clinical stages of HIV infection. Extensive herpes zoster, seborrhoeic dermatitis, and oral candidiasis may act as indicators and their recognition is of particular importance for the early diagnosis of HIV infection and prevention of further opportunistic infections.

In our present study, first 50 of patients, above 14 attending Dermatology OPD who were diagnosed cases of HIV infection but not on ART and whose history, clinical examination data, skin biopsy report, and current CD4 T cell count were available, were included. The data were analyzed using Microsoft excel 2003 data analysis tool and SPSS 16.

Among the patients in this study, 58% (n=29) were male. So, the male to female ratio of this group was

**Figure 1: Eosinophilic folliculitis**

**Figure 2: Pruritic papular eruption: Itchy tiny erythematous and skin colored papular eruptions mostly on extremities**

Skin diseases in HIV-infected patients: Impact of immune status and histological correlation

Sir,

Dermatological problems occur in more than 90%
had noninfectious cutaneous manifestations such as pruritic papular eruption in 43 cases (35.8%), pigmentary changes in 10 cases (8.3%), seborrhoeic dermatitis in 5 cases (4.2%), and psoriasis in 4 cases (3.3%).

Eosinophilic folliculitis [Figure 1] is said to occur at CD4 T cell count of 250–300/µl and therefore identifies patients at immediate risk of developing opportunistic infections.[3] Though we found only two cases of EF, their CD4 T cell count (276 and 290/µl) tally with the literature.

Pruritic papular eruption, [Figure 2] the commonest skin disorder encountered in our study, presents as firm, discrete, sometimes excoriated, erythematous urticarial itchy papules associated with eosinophilia. In the present series, nine patients of PPE had lesions both on extremities and trunk, four had lesions only on extremities, and one had papules over face and arms. That last case was clinically diagnosed as EF but skin biopsy clinched the diagnosis of PPE [Table 1].

Definite statistical correlation between some specific skin diseases and CD4 T cell count was found in the present study. HIV-related cutaneous manifestations are very common and can be easily detected. If studied properly, they can serve as diagnostic and prognostic markers [Table 2].[2]

Table 2: Association between skin diseases and CD4 T cell count of patients

| Skin diseases                          | No of cases | CD4 T cell count range (µl) | Mean CD4 T cell count (µl) | Standard deviation | Standard error of mean | Significance |
|----------------------------------------|-------------|-----------------------------|---------------------------|--------------------|------------------------|-------------|
| Pruritic papular eruption              | 14          | 60–234                      | 156.21                    | 51.718             | 13.822                 | df=10       |
| Seborrhoeic dermatitis                 | 12          | 278–560                     | 413.33                    | 73.442             | 21.201                 | F-value=9.866 P<0.05 (0.000) |
| Psoriasis                              | 5           | 111–375                     | 258.00                    | 119.833            | 53.591                 |             |
| Molluscum contagiosum                  | 5           | 42–116                      | 85.60                     | 28.325             | 12.667                 |             |
| Morbilliform drug eruption             | 3           | 86–421                      | 287.67                    | 177.647            | 102.564                |             |
| Toxic epidermal necrolysis             | 1           | 336–336                     | 336.00                    |                    |                        |             |
| Eosinophilic folliculitis              | 2           | 276–290                     | 283.00                    | 9.899              | 7.000                  |             |
| Prurigo nodularis                      | 3           | 324–900                     | 550.67                    | 306.968            | 177.228                |             |
| Polymorphic light eruption             | 2           | 443–657                     | 550.00                    | 151.321            | 107.000                |             |
| Lupus vulgaris                         | 2           | 139–143                     | 141.00                    | 2.828              | 2.000                  |             |
| Borderline tuberculoid leprosy         | 1           | 525–525                     | 525.00                    |                    |                        |             |
| Total                                  | 50          | 42–900                      | 283.78                    | 175.861            | 24.870                 |             |

1.38:1. The patients were mostly in 26–35 years age group (50%).

Out of 50 patients, 41 patients (82%, n=41) presented with stage II, 8% (n=4) presented with stage III, and 10% (n=5) presented with stage IV clinical symptoms of HIV disease spectrum (revised WHO clinical staging of HIV/AIDS for adults and adolescents, 2006).

In this study, 96% of the provisional diagnoses given clinically proved to be true after they were verified by histopathological methods.

The commonest dermatological disorder encountered in the present study was pruritic papular eruption (28%), followed by seborrhoeic dermatitis (24%), psoriasis (10%), molluscum contagiosum (10%), and drug reactions (8%). Sivayathorn et al.[1] found in Bangkok in 1995 that pruritic papular eruption (PPE) had a prevalence of 32.7%, SD 21%, and psoriasis 6.5% among HIV seropositives with skin lesion. In an Indian study at Vadodara, 120 out of 200 cases had noninfectious cutaneous manifestations such as pruritic papular eruption in 43 cases (35.8%), pigmentary changes in 10 cases (8.3%), seborrhoeic dermatitis in 5 cases (4.2%), and psoriasis in 4 cases (3.3%).[2]

Eosinophilic folliculitis [Figure 1] is said to occur at CD4 T cell count of 250–300/µl and therefore identifies patients at immediate risk of developing opportunistic infections.[3] Though we found only two cases of EF, their CD4 T cell count (276 and 290/µl) tally with the literature.

Pruritic papular eruption, [Figure 2] the commonest skin disorder encountered in our study, presents as firm, discrete, sometimes excoriated, erythematous urticarial itchy papules associated with eosinophilia. In the present series, nine patients of PPE had lesions both on extremities and trunk, four had lesions only on extremities, and one had papules over face and arms. That last case was clinically diagnosed as EF but skin biopsy clinched the diagnosis of PPE [Table 1].

Table 1: Skin disease distribution in patients of the study population

| Skin diseases in HIV                      | Number of cases (%) |
|------------------------------------------|---------------------|
| Pruritic papular eruption (PPE)          | 14 (28)             |
| Seborrhoeic dermatitis (SD)              | 12 (24)             |
| Psoriasis (PSO)                         | 5 (10)              |
| Molluscum contagiosum (MC)               | 5 (10)              |
| Morbilliform drug eruption (MDE)         | 3 (6)               |
| Toxic epidermal necrolysis (TEN)         | 1 (2)               |
| Eosinophilic folliculitis (EF)           | 2 (4)               |
| Prurigo nodularis (PN)                   | 3 (6)               |
| Polymorphic light eruption (PMLE)        | 2 (4)               |
| Lupus vulgaris (LV)                      | 2 (4)               |
| Borderline tuberculoid leprosy           | 1 (2)               |
| Total                                    | 50 (100)            |

In this study, 96% of the provisional diagnoses given clinically proved to be true after they were verified by histopathological methods.
Letters to Editor

Comments: “Pattern of sexually transmitted infections and performance of syndromic management against etiological diagnosis in patients attending STI clinic of a tertiary care hospital”

Sir,

It was interesting to read “Pattern of sexually transmitted infections and performance of syndromic management against etiological diagnosis in patients attending the sexually transmitted infection clinic of a tertiary care hospital” by Choudhry et al. Indian J Sex Transm Dis AIDS 2010;31:104-8.

The study coming from a tertiary care centre was not as exciting as I had expected it to be. There is confusion (may be to me only) which I wish to clarify.

Address for correspondence:
Dr. Sabyasachi Banerjee, 3/1, Haridas Ghosh Road, P.O. Naihati, Dist. 24 Parganas (N) - 743 165, West Bengal, India.
E-mail: sabyasachibanerjee2007@yahoo.co.in

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Author Queries???

1. The diagnosis of herpes simplex infection was made on the basis of smear with giant cells, positive serology for HSV-2/HSV-1 or on clinical examination or all of them together or in some other combination?

2. VDRL test is a non treponemal test and does not indicate the presence of T.pallidum in a given patient. T.pallidum has to be demonstrated only by dark ground illumination, immunofluorescence or by a special staining procedure in a smear or biopsy specimen – so the translation of VDRL positivity to presence of T.pallidum is not correct. Same is true for TPHA test supposed to reflect presence of T.pallidum. Both tests can be positive due to past infection and may not relate to the present ulcer.

3. To attach significance to the venereal disease research laboratory test /treponoma pellidum haem aglutinin test positivity– a particular titre is important – but the cut off is not given in the text.

So the basic question – how was the ulcer diagnosed to be syphilitic: on the basis of clinical appearance or the positivity of either serological test or a combination of all?

4. Table 1 gives total number of patients with genital ulcers to be (61+30=91) – but in table 2 the number of patients with HSV-2 (37+49=86) and with T.pallidum is (45+26=71), so the total is 157 – where is the catch? But to me it means (even if we exclude patients with more than one infection) that patients with positive laboratory reports – even without ulcers have also been included in the category of GUD. The results given also prove my contention. Genital herpes (86/300), syphilis (71/300), total ulcers in only 91 - obviously so many cannot be with mixed infection ulcers so there is an overlap in the laboratory positives.

5. Table 3 gives the number of patients given syndromic treatment to be (60+15) but originally there were 91 patients with genital ulcers? How did it happen?

I wish that such good material would have been interpreted properly to give us better information.

With best regards.

Bhushan Kumar
Department of Skin, STD and Leprosy, PGIMER, Chandigarh, India

Address for correspondence:
Dr. Bhushan Kumar, Department of Skin, STD and Leprosy, Access this article online

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