INTRODUCTION

Mucocutaneous manifestations are very common in HIV infected patient. These lesions are frequently observed in advanced disease and are due to several pathogens, including viral, bacterial, parasitic and mycotic agents. Herpetic whitlow is a well described HSV lesion which is clinically manifested by pain, vesiculobullous lesions with subsequent purulent infection or abscess involving the pulp of distal phalanx. After the acute stage, the skin heals normally.

A case of unusual transmission of HSV-2 infection from a finger herpetic whitlow to penile shaft is described to emphasize the role of severe HSV manifestations as indicator of advanced infection.

CASE REPORT

A 33-year-old cook, negative to HIVAb in October 1991, became seropositive to HIV-1 and HIV-2 in January 1992 because of sexual contacts with Nigerian prostitutes. Despite a rapidly falling of CD4+ cells, persistently below 50 cells/µL over the last year, he had no history of AIDS-defining illness.

In April 1996 he consulted a plastic surgeon because of a progressively enlarging, sharply demarcated and extremely painful ulceration on his right forefinger. The patient reported having had a jagged, tearing wound caused at work by a carving-knife on the back of his index finger and sexual contacts, using condom, with black prostitutes in January 1996. No more skin lesion in other sites was reported by the patient.

Bacterial culture grew *Staphylococcus epidermidis* and intravenous therapy with ceftazidime was started along with topical application of silver sulfadiazine. After a 3-week treatment, the lesion did not heal and the patient was referred to the Clinic of Infectious Diseases.

At entry physical examination showed enlarged liver and slight harshness in breath. Oral candidiasis was also present. The patient firmly denied a history of “cold sores” or previous herpetic infection and did not have condylomata elsewhere.

Figure 1 - Severe herpetic whitlow which affects the right index finger. Note the extension of the lesion and the losses of tissue to varying depth.

Figure 2 - Large herpetic erosion of penile shaft.
T-cell subsets showed a severe immunodeficiency (CD4+ cells, 9/μL) and serum p 24 HIV-1 antigenemia was negative. Serum transaminases were slightly increased, but HBV and HCV serology was negative. Likewise standard serology to CMV, HSV-1 and HSV-2, cryptococcus and syphilis was noncontributory. Bacterial and fungal cultures of the lesions were all negative. Before the response of the finger lesion’s viral isolation, the patient discharged himself. Five days later the subject presented with a rapid advancing erosion, with crusted and hemorrhagic vegetations and tumor-like ulcerations, which completely encircled his forefinger. Extensive erosion of penile shaft with small multiple subpreputial lesions was also documented (Figures 1 and 2).

Patient was afebrile and his physical examination was unmodified. Cultures and biopsy of the finger and penile lesions were performed. Viral isolation confirmed HSV-2 infection in both sites, finger and subpreputial. The biopsies taken from the advancing edge of the finger lesion revealed cytopathic changes typical of herpes virus infection. The patient was given acyclovir, intravenously (750 mg twice a day) and orally (800 mg once a day) for 3 weeks. Both genital and finger lesions rapidly healed (Figures 3 and 4).

Three weeks later, genital herpes occurred in coronal sulcus and the patient was given again acyclovir.

While having herpetic lesions, the patient had frequent unsafe sex with his wife. The woman was tested repeatedly negative for HIV serology and she is clinically free of herpetic lesions.

**DISCUSSION**

In the general population, herpetic whitlow is a primary HSV infection which most commonly affects the index or the middle finger [1, 2]. It follows minor trauma, but in many patients it is difficult to demonstrate a history of local injury. Differential diagnosis takes into account staphylococcal or streptococcal infection, paronychia due to Candida albicans, milker’s nodules. Definitive diagnosis was made by HSV isolation and identification, Tzank test, fluorescent antibody staining of scrapings from the edge of active lesions or fourfold rise in HSV antibody titer in convalescent-phase serum.

Infrequent and usually self-limiting in the general population, herpetic whitlow occurs more often in the various stage of HIV infection, more persisting and becoming extensively destructive. A prolonged intravenous treatment is usually needed and the healing can be difficult because of the presence of herpes simplex strains resistant to acyclovir [3, 4].

In the present case report three points are germane to the discussion. First, it is unusual that the herpetic whitlow was the primary infection, likely due to sexual contacts with black prostitutes. Regard to it the patient reported to have had safe sex by condom with prostitutes. In fact sex with African prostitutes put the patient at higher risk for herpetic infections. As a result, it could be that HSV-2 infection was transmitted by contacts of the previously injured index finger with the genital mucosa of prostitutes. Later spread of HSV-2 infection from the forefinger to the penis could have been. In fact the genital lesions appeared 20 days after the response of the finger lesion’s viral isolation. Second, the herpetic lesions on the forefinger were the primary infection, likely due to sexual contacts with black prostitutes. Regard to it the patient reported to have had safe sex by condom with prostitutes. In fact sex with African prostitutes put the patient at higher risk for herpetic infections. As a result, it could be that HSV-2 infection was transmitted by contacts of the previously injured index finger with the genital mucosa of prostitutes. Later spread of HSV-2 infection from the forefinger to the penis could have been. In fact the genital lesions appeared 20 days after the response of the finger lesion’s viral isolation.
later and the patient repeatedly denied history of vesicles or erosions prior to the finger lesion. Second, our patient often had unsafe sex with his wife, but the woman did not seroconvert to HIV and did not show any genital lesion due to HSV. The lack of transmission of HSV-2 through sex could be an indirect proof of the primary HSV-2 lesion outside the genitalia. Moreover this report emphasizes the key role of Herpes virus in determining mucocutaneous ulcers in HIV infected individuals as well as the need of considering and treating these lesions as herpetic until proven otherwise [5,6]. Finally, the recurrence of herpetic lesions on the penis, but not on the finger, is an intriguing discrepancy and can lead to speculate on the different role of the immune system’s response in the skin and in the mucous membranes.

Key words: Herpetic whitlow, HIV.

Our paper describes an unusual case of herpetic whitlow due to HSV-2 in an HIV-1 and HIV-2 infected patient. This patient was a 33-year-old cook, HIV-1Ab and HIV-2Ab positive for 4 years. The CD4+ cell count was below 50 cells/µL and no previous AIDS-defining illness happened. After having had a jagged tearing wound by a carving-knife on index finger of his right hand, he showed a rapid advancing erosion, which completely encircled his forefinger, due to HSV-2. Twenty days later he also showed two small adjacent lesions on penile shaft which rapidly extended with multiple subpreputial lesions. These lesions were caused by HSV-2 infection too. Both, finger and penile lesions, completely healed after a 3-week treatment with intravenous and oral acyclovir.

REFERENCES