Wart Lesion in a Patient Associated with HIV Infection and Treatment under IMOD Therapy

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Abstract- We report a 27-year-old hemophilic male who was HIV positive and under Highly Active Antiretroviral Therapy (HAART) along with wart lesions. When IMOD therapy started concurrently with HAART, the skin lesions disappeared.

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Introduction

Immune suppressed patients have greater numbers of warts than the general population and may have multiple types of common warts in the hands and plantar (1). Warts are more frequent in HIV infected persons. Multiple, large and treatment-resistant warts are the hallmark of symptomatic HIV infection, especially AIDS. As with other infectious conditions in the HIV-infected patients, treatment of warts is difficult, and recurrence is to be anticipated. Failure of therapy is the highest in patients with the most advanced immune suppression (2).

The management of common and plantar warts in the HIV-infected persons is by the usual methods which include: cryotherapy, keratolytics, cantharidin, bleomycin injections, etectrodesiccation and laser ablation (2).

The herbal extract IMOD (Setarud) has immune system modulatory effects. In a study on HIV infected patients entering AIDS phase with CD4 count less than 200 cells/mm^3, after 3 months treatment course with IMOD, the CD4 count increased significantly and the patients exited through the symptomatic phase of AIDS (3). Therefore there was no need for their hospitalization and this effect remained stable for a long period of time. Daily dosage of IMOD is intravenous infusion of 4ml vial diluted in 150 ml dextrose water (5%). A complete course of treatment is maximum 90 days (3).

In present study, we report a patient who is treated under Highly Active Antiretroviral Therapy (HAART) for 11 months by the end of which no improvement appeared in his warts. IMOD therapy was added to his treatment and after 3 months the warts completely disappeared.

Case Report

A 27- year- old hemophilic male who was positive to HIV antibody for 19 years and was recently diagnosed as entering the AIDS phase with low CD4 count (70 cells/mm^3) received antiretroviral therapy for one year. He was treated by Lamivudine 150mg BD, Zidovudine 600mg BD and Efavirenz 600mg daily.

The wart lesions in his hands gradually appeared since 8 years ago and presented specifically in his hands and legs. The lesions were treated by cryotherapy several times, but no response to treatment was observed. In this period the warts appeared on his legs as well.

During the 9 months HAART therapy there was no significant change in the patient's warts (Figure 1), but when IMOD started simultaneously with HAART, warts started to decrease. A routine CD4 count also showed an augmentation in amount of CD4 count (Table 1). By the end of month 3 after IMOD therapy the warts were completely disappeared, although the scars were yet visible (Figure 2).

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Table 1. CD4 lymphocyte counts and corresponding skin manifestations through IMOD therapy

Date	CD4 (cells/mm^3)	Skin manifestations
Oct 2008	204 (Before IMOD therapy)	Wart lesions were stayed in hands, and legs
Jan 2009	262 (On IMOD therapy)	The lesions began to decrease
Feb 2009	312 (After IMOD therapy)	The lesions were disappeared

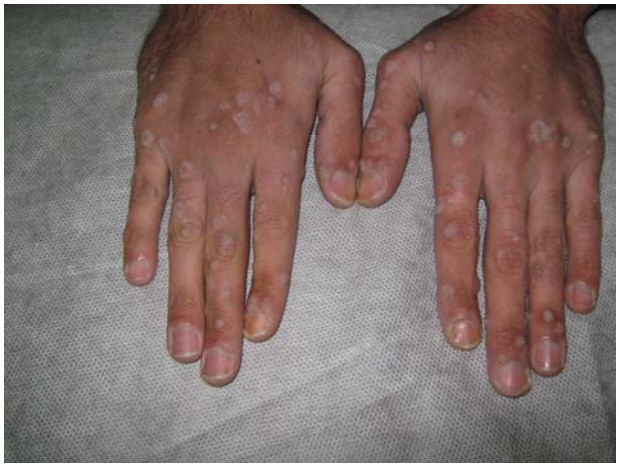

Figure 1. Wart lesions on the hands before IMOD therapy

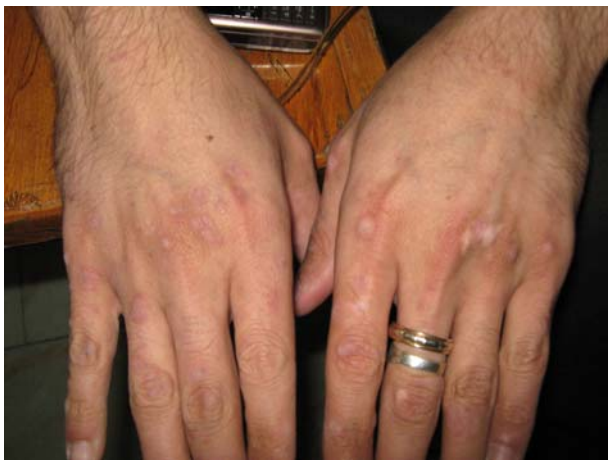

Figure 2. Wart lesions were disappeared 3 months after IMOD therapy

Discussion

The immune system has been proposed to be a factor in the spontaneous regression due to the high prevalence of common warts in immune suppressed patients, especially in HIV infected patients. Warts treatment are numerous and varied and procedure like cryotherapy, electrosurgery, laser, salicylic acid and cantharidin have been used (2). Novel treatments for warts are immune response modifiers such as Imiquimod which is a potent stimulator of the immune response through induction of synthesis and release of cytokines, such as interferon-alpha (IFN- α) and interleukin-12 (IL-12). It also acts to stimulate other elements of innate immunity such as natural killer cells as well as cells and cytokines involved in acquired immune system such as T- helper cells and IFN-γ (4, 5).

Other drug which is used to treat wart is Resiquimod which affects specific component of innate immune response and subsequently affects T-helper1-mediated immune responses, IL-12 as well as IFN-γ production (6).

We report a 27-year-old HIV infected patient which had warts lesion for 8 years. Cryotherapy was carried out for several times without any response to the treatment. However, after IMOD therapy the warts completely disappeared.

It is believed that IMOD (Setarud) has an immune-modulatory and immuno-stimulatory effect. IMOD is a mixture of herbal extracts (Tanacetum, vulgar, Rosa canina, Uryica) supplemented with selenium (7). Due to the nature of its ingredients, it has tendency to increasing immune regulatory cell ratio (CD4/CD8). It is also able to induce specific cytokines production (IFN-γ and IL-2) and suppress other cytokines such as IL-10 and IL-13. It appears that IMOD is a strong stimulator of immune system and inducer of lymphocyte activation (8,9).

We report a case under IMOD therapy, CD4 count increased constantly through 3 months, and wart lesions disappeared 3 months after therapy. This case report may provide preliminary evidence for the use of IMOD in randomized clinical trials in patients with AIDS.

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