

Recurrent Herpes Zoster as a Sign of HIV Infection

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Abstract

Herpes Zoster is characterized with painful dermatomal blisters, which commonly seen in elderly or immunocompromised people. It is caused by varicella zoster virüs (VZV). HIV infection is known as a risk factor for herpes zoster and for developments of its complications. Cutaneous findings can be the presenting symptom for HIV infection. In the presence of HIV infection, HZ can be prolong or can complicate evet its recurrence rate increases. HZ recurrences are usually seen in immunocompromised individuals. In the presence of HIV infection, the risk of HZ increases up to 12-17 fold. Prophylaxis with daily asiclovir decrease the risk of HZ by 68%. Vaccination for HZ was found safe and effective in HIV patients with CD4+ cell count more than 200 cells/. Skin findings are frequent in HIV patients and its diversity change according to the stages of the disease. Here we report a case of recurrent HZ which later diagnosed with positive for HIV, therefore, to mention HIV as a risk factor in cases of recurrent HZ.

Keywords: Herpes Zoster, recurrence, HIV, acylovir, shingles

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Introduction

Herpes Zoster is characterised with painful dermatomal blisters, which commonly seen in elderly or immunocompromised people. It is caused by varicella zoster virus (VZV) (1). The risk of HZ increase with the age. In case of immunodeficiencies, HZ recurrence risk increase (1,2). HIV infection is known as a risk factor for herpes zoster, recurrences of HZ and for the developments of its complications (2,3). It is well-known that HIV is associated with increased risk of mucocutaneous manifestations. Cutaneous findings can be the presenting symptom for HIV infection. Skin diseases can occur anytime in the course of the disease. (4). Prevalence of mucocutaneous disease in HIV- infected individuals can increase up to 90% (5). With highly active antiretroviral therapy (HAART), survival of HIV-infected patients prolonged, resultantly, they faced more dermatological findings. The immune status of the individual and the use of HAART, are the main factors determining the mucocutaneous manifestations of HIV infection. IN HIV-infected individuals, the skin diseases which can be also be seen in otherwise healthy populations, usually have more protracted course, they may have more severe course, they can be resistant to the treatments, besides they can recur and have atypical presentations and courses. Mucocutaneous manifestations help both in the diagnosis and staging of the disease in HIV - positive individuals (4,5). Dermatologist should be aware of mucocutaneous findings of HIV infections and should not be late to investigate the patient for the HIV infection when necessary. Here we report a case of recurrent HZ which later diagnosed with positive for HIV, therefore, to mention HIV as a risk factor in cases of recurrent HZ.

Case

49 years old male patient applied to the dermatology clinic with the painful blisters on the back and umbilical area. In dermatologic examination, there were multiple vesicles located on the erythematous base, beginning from the middle of the back towards to the umbilicus. Vesicles are grouped together and distributed dermatomally. Tzanck test was performed and there were multinucleated giant cells and acantholytic cells. VZV IgG was positive. After the dermatological examination and the tests performed the patient was diagnosed with HZ. Valacyclovir 1000 mg three times daily for 7 days prescribed to the patient. After at the end of the first week of the treatment the patient reevaluated. The lesions were crusted (figure 1 and 2), but the patient still had severe pain. When we

asked patient in detail the patient did not describe any stress or anxiety. The patient informed us about he had similar lesions and diagnosed with HZ six months ago. Because of the young age of the patient and the recurrence of HZ we did detailed physical examination to find out any underlying immunodeficiency. The patient did not have any fever, weight loss, night sweats. He had no known any medical illness and he was not on any treatment. In physical examination there were no lymphadenopathy. Routine biochemistry, complete blood counts, viral hepatitis serology, sedimentation level and C-reactive peptide level were within normal range but the patient was found positive for anti-HIV. The patient was consulted to the infectious diseases department. Informed consent of the patient taken prior to the publication.



Figure 1 After 1 week of treatment, dermatomally located necrotic crust and erosions (dorsal)



Figure 1 After 1 week of treatment, dermatomally located necrotic crust and erosions (abdominal)

Discussion

HZ is the result of reactivation of latent VZV in the dorsal root ganglia which usually caused varicella during childhood period. HZ is characterised with dermatomally distributed painful vesicles. The overall risk of HZ was reported 20-30 % and its prevalence significantly increases after the age of 50. Even the risk reach up to 50% after 85 years old (1,3). Also HZ risk increases in the presence of immunodeficiency (6).

It is accepted that people get HZ usually once in their life. when it recurs it is thought as the sign of immunodeficiency. The recurrence rate for HZ vary between 0,2%-12,5% in the studies. The difference between the studies can be because of study, population and total time that patients followed (7,8). Besides age and immunodeficiency the risk of recurrence of HZ increases with chronic diseases as diabetes, hypertension, dyslipidemia, chronic obstructive lung disease, depression and hypothyroidism. In addition the people who have more serious first episode and whose pain lasts more than 30 days have more pronounced risk of HZ recurrence (9).

In the presence of HIV infection the risk of HZ increases up to 12-17 fold. HIV positive patients usually have more complicated disease, the disease can spread more than one dermatome, it has more complication such as postherpetic neuralgia and they have more recurrence risk (3,7,8). Lee et al. reported that HZ can be sign of HIV infection especially at young individuals (10). In their study Barnabas et al. showed that acyclovir prophylaxis reduced HZ events in HIV-infected individuals. But acyclovir prophylaxis did not prevent HZ recurrence among persons who

reported previous history of HZ. HZ vaccine recommended people after age 60, but in the case of immunosuppression it is contraindicated, such as HIV-infected individuals with CD4+ cell count less than 200 cell / μ L (11).

Skin findings are frequent in HIV patients and its diversity change according to the stages of the disease. As a consequence skin findings can be clue for the stage of the infection (4,5). Although with administration of the antiretroviral treatment (ART) the frequency of opportunistic decreased, the risk of HZ remained same. On the contrary some studies reported as the frequency of HZ declined after ART (3). Herpes Zoster, along with extensive oral candidiasis, and oral hairy leukoplakia, as indicator of the acquired immunodeficiency syndrome (AIDS) (12).

HZ which is mild and confined to only one dermatomal region can be treated with aciclovir, valaciclovir and famciclovir in HIV-infected patients. In patients with more complicated, disseminated and severe cases, ophthalmic HZ and Ramsey Hunt syndrome should be treated with intravenous aciclovir. Although the aciclovir prophylaxis decreases the prevalence of HZ in HIV+ patients, prolonged use is not recommended (13).

Conclusion

As a global health issue, HIV has a wide list of cutaneous manifestations, some of which can help in the diagnosis of HIV infection. It is known as the frequency of HZ increases steadily with age and in the presence of immunosuppression. And it is also known that recurrences of HZ usually occur in patients who have immunosuppression for various cause As a consequence in young patients, patients with protracted or severe disease, HZ resistant to treatment, and also recurrent diseases should raise suspicion for underlying immunosuppression and HIV should be kept in mind.

Herpes Zoster, Recurrence, HIV, acyclovir, shingles

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Patient Approval

Approval was received for this study from the patient.

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