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Case Report

Recurrent herpes simplex in elderly with vitiligo vulgaris: A dilemmatic case

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Abstract Herpes simplex is a viral infection that frequently recurs after treatment. We reported a case of recurrent herpetic lesion in a 61 year old elderly with vitiligo that routinely undergoes UVB phototherapy. The patient was previously diagnosed with vitiligo vulgaris and is already under narrowband UVB phototherapy since 18 months ago. The herpetic lesion appeared above the vitiligo area, therefore it was well-exposed to UVB phototherapy. There was no other disease or drug consumed. Upon treatment with oral and topical acyclovir, the herpetic lesion improved. Not long after however, the lesion continued to reappear after treatment, up to five times in the past year. Therefore, we increased the dose of acyclovir to 800 mg b.i.d. for 7 days, and protected the herpetic lesion during phototherapy until it resolved. Suggested treatment options include higher and longer periods of antiviral, herpetic lesion protection, and/or surgical nerve decompression.

Key words
Herpes simplex, recurrence, vitiligo vulgaris, elderly, UVB phototherapy.

Introduction

Herpes simplex is an infection caused by herpes simplex virus (HSV) that manifests as grouped vesicles on an erythematous base. HSV can cause primary infections anywhere on the skin, especially if there is disruption of skin integrity. Once a HSV infection has taken root, the virus lives in a latent state within nerve cell bodies in ganglion neurons and can reactivate. The frequency and severity of reactivation are determined by many factors, including immunodeficiency, aging or stress.

Case report

A 61-year-old man came due to recurrent itchy vesicles on the his back since 1 year ago. The lesion was small at first, but increased in number and size. He also experienced mild fever and malaise prior to the lesion's appearance. At the time, the patient was under UVB phototherapy for vitiligo since 18 months ago. He noted that the vesicles always appeared over the vitiligo lesion without any pain. He was treated with a combination of oral and topical acyclovir until the lesion disappeared. Not long after however, the lesion reappeared and disappeared after another round of treatment with acyclovir, only for it to appear again. In the past one year, the patient has experienced five episodes of recurrences.

The first time the patient had herpes simplex at the same location was 10 years prior and was treated successfully. There was no vesicle in another part of the body, including genital and oral.

The patient was a police officer who used to live in a dormitory where he shared beds and toiletries with many others. Despite these risk

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Figure 1 Vesicles on the vitiligo lesion at the back.

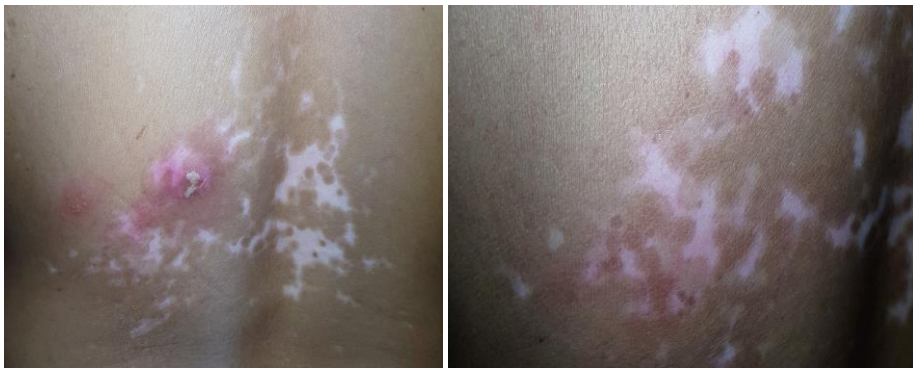

Figure 2 Vesicles before (left) and after (right) acyclovir treatment.

factors however, the patient denied any contact with another herpes patient during his lifetime. There was no history of allergy, herbal consumption, or topical drug usage other than the ones prescribed. Other chronic diseases or history of immunosuppressant medication was also denied. He takes a shower twice daily with normal temperature water, and moisturized soap. He has been treated with narrowband whole body and localized UVB for a total of 93 times with a dosage of 1259 mj/cm^2 and 512 mj/cm^2 respectively. He also applied 0.25% dexoxymetason ointment two times daily on his vitiligo lesion since 1 month ago.

In the physical examination, we found on the scalp, forehead, lips, back, chest, and bilateral knee, dorsum manus, digiti I-V, dorsum plantar pedis, multiple depigmented macula, sizes ranging from lenticular to plaque, discrete to confluent, circumscribed, and accompanied with repigmented islands, covered a total body surface area of 11%. On his back, we found multiple vesicles and pustules, sized miliar to lenticular, confluent, with irregular margins. Visual analog scale for itch was 5. There were no inguinal or axillar lymph node enlargement.

Blood tests revealed positive HSV-II IgG (titer of 6.02), but negative HSV-II IgM, HSV-I IgM, HSV-I IgG. A Tzanck test showed multinucleated giant cells that indicated viral infection.

The patient was then treated with acyclovir 800 mg b.i.d. for 7 days. We also protected the herpetic lesion during phototherapy until the herpetic skin was resolved.

Discussion

This case demonstrates an elderly with recurrent typical herpes simplex lesion over an area of vitiligo that routinely undergoes phototherapy. Interestingly, the herpetic lesion appeared above the vitiligo lesion, which was directly exposed to UVB phototherapy, and re-appeared in the same location after antiviral treatment.

The first herpetic lesion appeared 10 years ago, suspected as the primary clinical manifestation. HSV infection is now recognized as a lifelong infection that consists of three phases: acute, latent, and reaction. Additionally, he also has vitiligo, a disease highly correlated with the deregulation of the immune system that may be the cause of reactivation of HSV. In accordance to this notion, papers have identified UV exposure, local trauma, and psychological stressors as risk factors for HSV reactivation.[1-6] Those external agents may alter cellular immunity that results in reduced activity of CD4+ and CD8+ T-lymphocytes, NK cell, and pro-inflammatory cytokines (e.g. interferon-γ as one the important defenses against HSV infection). UV irradiation ranging from 280 to 315 nm is known to reactivate HSV in animal

models and humans. This hypothesis is in line with the fact that the lesion continued to reappear at the exact same location.[7-10]

We exclude herpes zoster due to the absence of dermatomal spreading of the vesicles and burning sensation in that area. Although it is not quite sensitive, serological markers in this patient only showed HSV-II IgG positive and IgM negative results that indicate chronic infection. Additional evidence to support this was a Tzanck smear of the vesicles that showed multinucleated giant cells in keratinocytes.

The main therapy for HSV infection is adequate antiviral treatment. It is recommended to give antiviral drugs, like acyclovir 400 mg t.i.d. for 7-10 days, within 72 hours after virus inoculation. To prevent recurrence, Raborn *et al*.[8] recommended acyclovir 800 mg b.i.d. for 3-7 days, or surgical nerve decompression. We also protected the herpetic lesion every time the patient underwent phototherapy. After 2 months of implementing these strategies, the patient did not experience any recurrence granting him a longer disease-free period and better quality of life. We continue to monitor this patient to quantify this disease-free period.

Conclusion

This is a unique case involving recurrent herpetic lesion due to phototherapy in an elderly patient with vitiligo. Strategies combat this was protecting the herpetic lesion during phototherapy and administering acyclovir 800 mg b.i.d. Results after 2 months of observation showed no recurrence. The patient was also monitored for HSV serology titers.

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