

Disseminated Herpes Zoster in Immunocompetent Young Adult

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Abstract: *Herpes zoster, commonly known as shingles, is caused by the reactivation of the varicella - zoster virus (VZV), which remains dormant in the dorsal root ganglia after the initial infection. While it typically affects older adults or those with weakened immune systems, this report presents a rare case of disseminated herpes zoster in a healthy young adult. A 30 - year - old male with no significant medical history, apart from being in a pre - diabetic stage and having a stressful occupation, presented with painful vesicular lesions across multiple dermatomes, accompanied by fever. Diagnostic tests confirmed the presence of VZV, and other serological tests were negative for common immunocompromising conditions. This case underscores the importance of considering herpes zoster in the differential diagnosis for similar presentations, even in young, otherwise healthy individuals.*

Keywords: Herpes zoster, varicella - zoster virus, immunocompetent, disseminated, young adult

1. Introduction

Herpes zoster is caused by the varicella - zoster virus (VZV), which after initial infection, remains latent in dorsal root ganglia of the spinal cord. Multiple factors, such as advanced age, physical trauma, psychological stress, cancer, radiotherapy, or states of immunosuppression¹, can cause reactivation of virus which manifests as painful blisters involving a specific dermatome². Disseminated herpes zoster is one of the serious manifestations and is more frequent and severe in the immunocompromised population³.

Here, we report a case of disseminated herpes zoster in an immunocompetent young adult patient.

2. Case Description

A 30 year old male patient presented to dermatology OPD with complaints of fluid filled painful skin lesions on abdomen, back, face and neck since 3 days. He also complained of fever since 1 day. On examination, there were multiple grouped vesicles on erythematous base on right side of abdomen and back along T9 and T10 dermatomes (figure 1). There were few scattered vesicles on erythematous base on chest, back, face and neck (figure 2, 3, 4). Complete blood count, TSH, RBS levels were within normal limits. HbA1c was 6.3. Varicella IgM and IgG antibodies were positive. HIV, HbsAg, HCV, RPR (serological tests) were non reactive. Tzanck smear showed acantholytic squamous cells admixed with few multinucleate giant cells (figure 5, 6). Acantholytic cells were large with high N: C ratio, vesicular to clumped chromatin. Occasional cells showed intranuclear inclusions. There were predominantly lymphocytes with few neutrophils in a proteinaceous background.

3. Discussion

Herpes zoster is caused by the reactivation of the latent varicella - zoster virus. Dormant virus present in dorsal root ganglion gets reactivated⁴ and travels down the sensory

nerves to the skin to cause the classical single, unilateral dermatomal rash. A viral prodrome is common, where patients present with headache, malaise, and photophobia followed by pain, paresthesias, and itching along a dermatomal distribution. The classical rash appears as sharply demarcated and localized clusters of vesicles and papules on an erythematous base in one or two contiguous dermatomes on the thorax or face, and it does not cross the midline of the body⁵. Patient might have a few scattered lesions outside of their sharply demarcated and localized rash in about 33% of immunocompetent patients. If more than 20 such lesions are identified outside the sharply demarcated rash, a diagnosis of disseminated herpes zoster can be made. This occurs in 2% of the general population and about 15% - 30% of cases in immunocompromised patients⁶. A report by Gupta et al showed a case of disseminated herpes zoster in an elderly male patient⁷ and a report by Emily et al showed a case of disseminated herpes zoster in elderly female patient with long standing hypertension and diabetes⁸. Whereas, in our case, disseminated herpes zoster was seen in an immunocompetent young adult.

4. Conclusion

Herpes Zoster is usually seen in elderly or immunocompromised patients. But here, herpes zoster was seen in an immunocompetent young adult. Only risk factor found in this case was pre diabetic stage and a stressful occupation with night shifts. This case is being reported for its rarity and atypical presentation.

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Figure 3



Figure 1: Multiple grouped vesicles on erythematous base on right side of abdomen and back along T9 and T10 dermatomes



Figure 4



Figure 2

Figures 2, 3 and 4 show few scattered vesicles on erythematous base on chest, back, face.

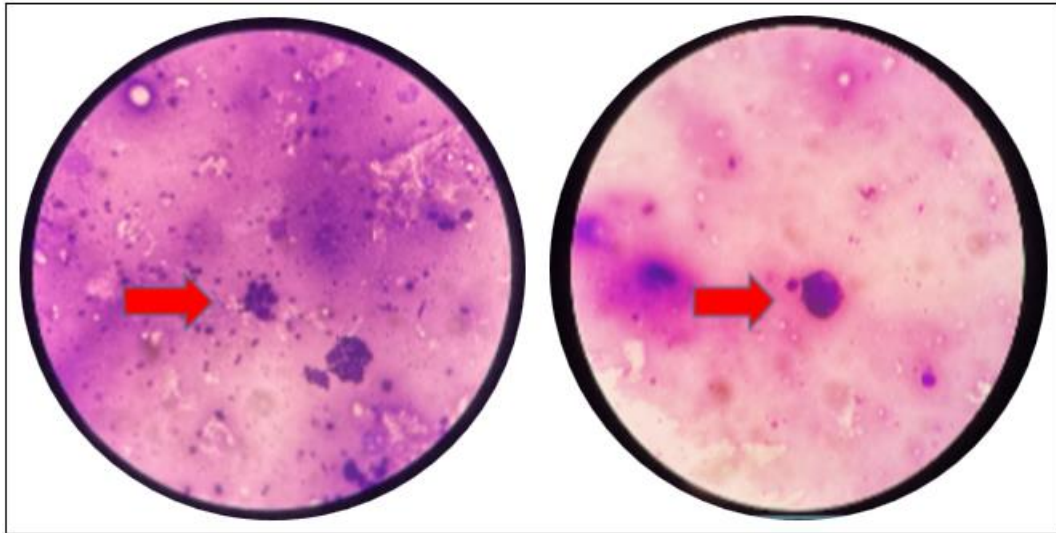


Figure 5 shows group of acantholytic cells Figure 6 shows multinucleate giant cells

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