

CASE REPORT

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## Disseminated varicella zoster in an immunocompromised patient: A case report

Raymond E. Kennedy, Narpinder Dhanoa, Kevin Frey

### ABSTRACT

**Introduction:** Human herpes virus 3 (HHV-3) is a human-specific virus known to be the cause behind chicken pox and varicella zoster. Presentation of this virus can vary depending on the immune status of the host. Typically, a uniform rash in a single dermatomal distribution is all that manifests. Alternatively, as in our case, a widespread and painful vesicular rash can erupt causing significant impairment requiring hospitalization. **Case Report:** An HIV-positive immunocompromised male presented with disseminated varicella zoster (VZV) despite adequate compliance with HAART therapy. The painful vesicles sporadically covered all areas of the body (feet, abdomen, back, face, etc.) and did not present in the classic dermatomal distribution found in immune competent hosts. Despite adequate therapy with a new combination HIV medication, the patient's CD4 count had diminished and he was admitted for suspected disseminated varicella zoster. Polymerase chain reaction (PCR) was later able to confirm the diagnosis. **Conclusion:** Varicella zoster can have varying presentations depending on the immune status of the host. In

an immunocompromised state, such as in our patient, the presentation can be widespread and more severe. Early diagnosis with polymerase chain reaction (PCR) and treatment with antivirals and analgesics is a top priority for the patient's well-being and clinical outcome. In our case, early detection and treatment allowed only for a minimal duration of the disseminated virus with prompt recovery and discharge from the hospital. Further investigation of the virus' interaction with medications, such as HAART therapy, that potentially alters the expression of the virus despite vaccination, as some studies suggest, could be beneficial.

**Keywords:** Anti-viral, Acyclovir, Disseminated, HAART, Herpes Zoster, HHV, Immunocompromised, Varicella zoster, VZV, Varicella

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### INTRODUCTION

Human herpes virus 3 (HHV-3) of the *Herpesviridae* family is an exclusively human virus that causes chicken pox and varicella zoster (also referred to as shingles) [1]. A