Elderly immunocompetent man presenting with disseminated cutaneous herpes zoster

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DESCRIPTION

A 60-year-old man presented to us with a history of vesicular eruptions involving his right upper limb associated with a sharp lancinating pain over the affected area for 6 days. His wife noticed new vesicular eruptions appearing over the entire trunk, back and face of the patient over the next 2 days. He did not report any fever, cough, respiratory distress, headache, neck stiffness or pain in the abdomen nor could he recall any history of chicken pox in the past, or any such recent contact. He did not suffer from any chronic ailments nor had he been on systemic steroids or any immunosuppressive medications in the recent past.

On admission, the patient was afebrile with stable vital signs. Cutaneous examination revealed multiple grouped vesicles on an erythematous base with focal crusting arranged over the radial aspect of right palm and extensor surface of right forearm, configured along the C6-C7 dermatomal segments (Panel A and B). Scattered vesicles with erosions and crusts were seen diffusely distributed over the face, trunk and back (Panel C and D) (figure 1). There was no evidence of any lymphadenopathy or organomegaly. Ophthalmological evaluation did not reveal any corneal involvement. Rest of the systemic examinations were unremarkable.

Complete blood count, liver and renal function tests and screening for diabetes were unremarkable. Serology for HIV 1 and 2, viral hepatitis markers and venereal disease research laboratory tests were negative. Serum protein electrophoresis was within normal limits. Examination of vesicle fluid from a truncal lesion demonstrated multinucleate giant cells on Tzanck smear whereas PCR was positive

for varicella zoster virus (VZV) and negative for herpes simplex virus. Imaging of chest, abdomen and pelvis revealed no abnormality.

The patient was immediately started on intravenous acyclovir (800 mg every 8 hours) along with analgesics. No further eruptions were noted from the next day. He was continued on intravenous acyclovir for a week and subsequently discharged on oral acyclovir (800 mg five times a day) for the next 7 days. He remained symptom-free after 6 months of follow-up.

Disseminated cutaneous herpes zoster (DCHZ) is defined by the presence of more than 20 vesicles beyond the primary or adjacent dermatomes.¹ VZV usually remains dormant in the sensory ganglion after primary infection; however, recollection of preceding varicella infection may not be elicited due to infection during early childhood, subclinical manifestation or misdiagnosis as some other viral exanthem.² VZV-specific cell-mediated immunity is very important to prevent reactivation of the primary infection.³ Thus, this complication of zoster has been predominantly reported in individuals with underlying immunosuppression (especially in T-cell deficiency) like HIV, cancer, chemotherapy or immunosuppressive therapy, bone marrow transplant recipients and immunological disorders;

Figure 1 Elderly man with disseminated cutaneous herpes zoster showing grouped vesicles on an erythematous base with focal crusting along C6-C7 dermatome of right upper arm (Panel A and B) and diffusely distributed vesicles and erosions involving the back and trunk (Panel C and D).

Patient's perspective

I am happy with the treatment I received here. I was thoroughly screened by my team of doctors and they made sure that no stones were returned, I was having something probably less common.

Learning points

- ▶ Disseminated cutaneous herpes zoster (DCHZ) is a potentially serious infection that can present, although rarely, in an immunocompetent individual. Underlying immunosuppression should always be ruled out in disseminated zoster disease.
- ▶ Patients with DCHZ should be screened for associated visceral organ involvement, especially the lungs, liver and brain. However, cutaneous dissemination in immunocompetent individuals have been found to be associated with low morbidity and mortality due to sufficient VZV cell-mediated immunity.
- ▶ Intravenous acyclovir is the treatment of choice for DCHZ.

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severe cutaneous and visceral disseminated disease have been reported in such patients.¹ Healthy immunocompetent individuals afflicted with this condition have been rarely reported in the literature.⁴ VZV-specific cellular immunity which gradually declines with advancing age may have contributed to the dissemination, as seen in our case.⁵

Patients with DCHZ are also at an increased risk of other visceral organ involvement, especially the lungs, liver and brain. However, mortality and morbidity risks are relatively low for immunocompetent patients with DCHZ. Prompt diagnosis and management with intravenous acyclovir is advocated in such patients.

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