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Case Report

Dermatology Section

Disseminated Cutaneous Herpes Zoster in a Patient with Uncontrolled Diabetes Mellitus

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ABSTRACT

Herpes zoster is a clinical manifestation which results from reactivation of latent VZV (Varicella zoster virus) present in the sensory root ganglia. Disseminated herpes zoster has been reported in immune-compromised patients such as patient on cancer chemotherapy, HIV (Human immune deficiency virus) infection, systemic corticosteroid therapy. However, we report a case of disseminated herpes zoster infection in an uncontrolled diabetic patient. A brief review of literature on this topic has been bestowed.

Keywords: Cell mediated immunity, Dermatome,Systemic corticosteroid therapy

CASE REPORT

A 50-year-old male, presented to Dermatology out-patient department of S S Institute of Medical Sciences with 3 days history of severe burning sensation over left shoulder, arm and forearm followed by development of multiple grouped vesicles [Table/Fig-1]. He had history of chicken pox during his childhood. On examination multiple grouped vesicles arranged in a dermatomal pattern over left upper extremity were seen. Patient gave no history of long term steroid intake, chronic renal failure or other illness. Patient was clinically diagnosed as herpes zoster and started with valacyclovir 1 gm 8th hourly. After two days of treatment, patient noticed multiple (>20 lesions) papules and vesicles over trunk and extremities associated with burning sensation [Table/Fig-2]. On Tzanck smear, few multinucleated giant cells were seen. On investigation, patient's random blood sugar, fasting blood sugar, post prandial blood sugar and HbA1c were 273 mg/dl, 215 mg/dl, 372 mg/dl and 11.2% respectively. His HIV serology was found to be negative. Chest X-ray, ultrasonography abdomen, complete haemogram, liver function test, renal function test, urine examination were normal. Diagnosis of disseminated herpes zoster was made. Patient was admitted and treated with intravenous acyclovir with a dosage of 10 mg/kg 8th hourly for 4 days followed by valacyclovir 1gm 8th hourly for 10 days and metformin 500mg and glimiperide 3mg 12th hourly. Patient's skin lesions showed improvement and blood sugar level came under control after 3 weeks of initiation of treatment.

DISCUSSION

Disseminated cutaneous herpes zoster is defined as the presence of more than 20 lesions outside the area of primary or adjacent dermatomes which usually occur within a week of onset of primary lesion [1]. It is most commonly seen in HIV infection, malignancy, patients on immunosuppressive drugs [2,3]. However, disseminated herpes zoster is rare in otherwise healthy persons who are not on immunosuppressive drugs and have no underlying malignancy. The basis for dissemination is thought to be decreased VZV-specific cell mediated immunity. The association between herpes zoster and diabetes mellitus has been investigated. Studies have shown increased incidence of herpes zoster in diabetic patients [4,5]. Okamoto et al., in his study found that patient with diabetes mellitus had significantly low VZV-specific immunity compared to healthy individuals [1]. Heymann et al., in his study noted that diabetes mellitus is one of the risk factor for herpes zoster [6]. A study by Nassaji-Zavareh et al., observed that undiagnosed diabetes is more common in herpes zoster patients than in patient without this [7]. To best of our knowledge only few cases of disseminated herpes zoster in diabetes have been published [8,9]. Our patient presented with characteristic skin findings of disseminated herpes zoster that was found to be diabetic. Dissemination of VZV is probably because of depressed cell mediated immunity associated with diabetes. Studies have shown increased incidence of herpes zoster in diabetic patients [4,5]. Nassaji-Zavareh M et al., showed significant associations between herpes zoster and undiagnosed diabetes mellitus [7]. Patients with disseminated herpes zoster are at risk of visceral involvement [10]. But there was no visceral involvement noticed in our case. Therefore, identification and aggressive treatment of disseminated herpes zoster infection in diabetic patient is more important. The treatment of choice for disseminated zoster is intravenous acyclovir 10 mg/kg every 8 hours for 5–7 days.

[Table/Fig-1]: Multiple grouped vesicles in a dermatomal pattern (C5, C6) over left shoulder **[Table/Fig-2]:** Disseminated papules and crusted vesicles over back

CONCLUSION

Disseminated herpes zoster is a potentially serious infection in an uncontrolled diabetic patient. Early diagnosis and prompt treatment is utmost important.

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