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Multidermatomal Herpes Zoster in an Immunocompromised Patient-A Case Report

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Abstract Multi-dermatomal involvement is uncommon in varicella zoster infection and indicates underlying immunosuppression. A 43 years old male, a known diabetic presented with painful papulovesicular lesions over the left side of the chest, back, arms and forearm with the history of chickenpox one month back. On evaluation for an unusual presentation, he was found to be reactive to HIV. Diagnosis of HZ was confirmed by HZV PCR. He was treated with antivirals, insulins, pain management and care of the lesions. The occurrence of the multi dermatomal herpes zoster with bilaterally symmetrical involvement immediately the following chickenpox is a rare observation and needs to be reported.

Keywords: *Multidermatomal Herpes Zoster, HIV, Varicella Zoster*

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1. Introduction

Herpes Zoster occurs as a reactivation of varicella zoster virus that remains latent in dorsal sensory nerve root ganglion after primary varicella infection (chicken-pox). Bokay [1] in 1892 was the first to note their clinical association since then many cases are reported in the medical literature from time to time.

Herpes zoster classically occurs unilaterally within the area of skin innervated by a sensory ganglion. Simultaneous involvement of two non-contiguous dermatomes and multi-dermatomal involvement are very rare, (Kim et al. [2]).

Reactivation of the latent varicella zoster virus is thought to result from the waning of specific cell mediated immunity (Thomus & Hall [3], 2004). The disease commonly occurs in HIV infected individuals with low CD4 and high viral load as common opportunistic infection. The simultaneous appearance of Herpes Zoster and varicella in the same patient is still very rare. Ferryman [4] in 1939 reported 100 such cases.

2. Case Report

A 43-year-old male, working in security forces, known diabetic on OHA presented with the painful papulovesicular lesion on erythematous base over left side involving chest, back, arm and forearm of 5 days duration, affecting dermatomes T1, T2, T3. He had a history of chickenpox one month back with marks of healing lesions all over the body.

On evaluation his built was average, nutrition poor, conscious, oriented, febrile (temp 99.4F), PR-84/min, BP-130/80mm Hg, RR-16/min, no pallor, icterus, clubbing, cyanosis, edema, lymphadenopathy. He had erythematous papulo-vesicular lesions over the chest, back, left arm and forearm. Marks of healed lesions of varicella all over the body, mainly over the trunk were present. He had extensive cutaneous fungal infection over axilla, back of the neck and groin. Liver and spleen revealed mild enlargement. Chest & CNS- normal.

3. Investigations

Routine blood examination – TLC-6800/cumm, P-67%, L-31%, M-2%, ESR-20 mm, Hb-15gm%. Urine routine-within normal limits, stool examination-normal gut flora. CRP-41mg/dl, RBS-252mg/dl, HBA1c-11.59%, s. creatinine-0.70mg/dl, s. Na+-140.3mmol/L, s. k+-4.37mmol/L, HIV ELISA- Reactive, HIV-1 RNA-223623 copies/ml), absolute CD4 count-157cells/µL, absolute CD8 493 cells/ µL. HZV DNA PCR- positive in vesicular fluid, CXR-within normal limits, USG(abdomen)-Hepatosplenomegaly.

4. Diagnosis and Treatment

Made on the basis of history, clinical profile and laboratory reports as an immunocompromised status

retroviral disease with multi-dermatomal herpes zoster and fungal infection, chickenpox in healing stage and type 2 DM. he was treated with ART(Tenofovir, Emtricitabine, Efavirenz), tab. Acyclovir 800 mg five times in a day for 10 days, tab. Fluconazole 200 mg OD for one month, tab. Pregabaline one tab OD, tab aceclofenac 50 mg BD, linezolid 600mg BD, cotrimoxazole prophylaxis, local acyclovir ointment, blood sugar was optimized with insulin and OHAs.

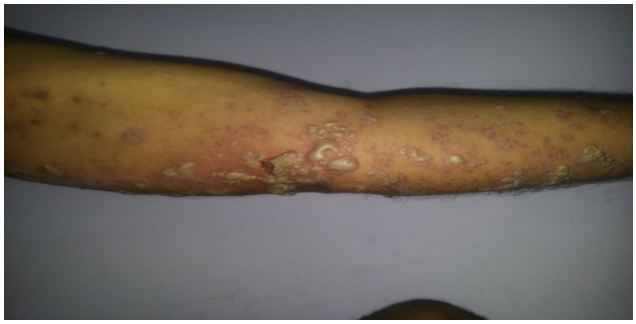

Figure 1. Vescicular eruptions over the arm and fore arm

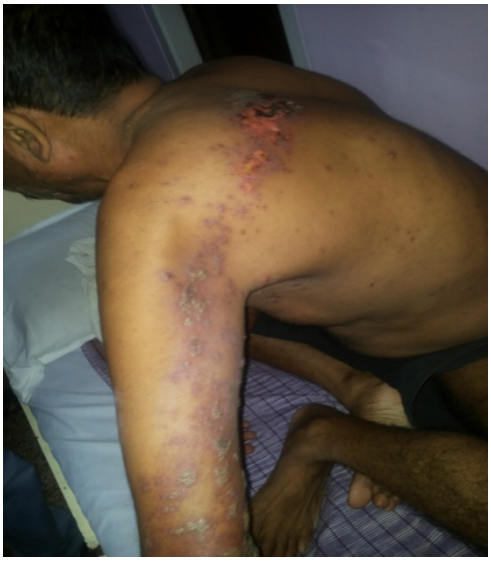

Figure 2. Eruptions over the back

Figure 3. Eruptions over the front of the Chest (bilaterally symmetrical)

5. Discussion

Bokay [1] (1892) noted the clinical association of herpes zoster and varicella. The distribution is commonly unilateral, most frequently dermatomes affected being thoracic in 55%, cranial in 20% cases. It is characterized by reactivation of latent varicella zoster, residing in dorsal root ganglia after the primary varicella zoster. Very few cases have been reported so far having simultaneous occurrence of herpes zoster and varicella in same patient. Cases were reported by Ferriman [4] (1939), Campbell [5] (1941) and Almeyda [6] (1942). In the present case also there was simultaneous occurrence of varicella and herpes zoster.

Involvement of multiple dermatomes in herpes zoster is uncommon and it may be due to immunosuppression such as old age, malignancy, organ transplantation and AIDS [3]. Kim et al in a study showed that with decreased cell mediated immunity, wide spread and multisite HZ increases in frequency. Simultaneous involvement of two non-contiguous dermatomes is very rare and referred to as zoster duplex unilateralis / bilateralis [2]. In the present case also there was bilateral involvement of T3 & T4 dermatome.

In this case, DM and HIV infection might have caused immunosuppression and unusual presentation of VZ and HZ in short succession of duration.

6. Conclusion

Rapid reactivation of HZ after primary VZ infection with multi-dermatomal involvement is uncommon. Bilateral symmetrical involvement of T3 & T4 dermatomes is a unique feature in the present case, which to my knowledge is not reported earlier. Thomas and Hall [3] in 2004 suggested that age, sex, ethnicity, genetic susceptibility, exogenous boosting of immunity from varicella contacts, underlying cell mediated immune disorders, mechanical trauma, psychological stress and immunotoxin exposure are risk factors for the development of Zoster. Such clinical presentation needs immediate evaluation for the underlying cause of immunosuppression and early treatment.

References

[1] Von bokay(1892) : quoted by john alymeda (1942) Post Graduate Medical Journal. 1942 October. Vol 18(203). P175-177.

[2] Kim SJ, Kang JD, Yoon NH, Park SD. A case of herpes zoster duplex bilateralis. Korean J Dermatol. 2004; 42:367–369.

[3] Thomas SL, Hall AJ. What does epidemiology tell us about risk factors for herpes zoster? Lancet Infect Dis. 2004; 4:26–33. [PubMed].

[4] Ferriman, D. G. (1939), Lancet, 1,930.

[5] Campbell, R.M. (1941), Brit. J. child. Dis., 38, 91-98.

[6] Almeyda J. simultaneous occurrence of Herpes Zoster and Varicella. Post Graduate Medical Journal. 1942 October. Vol 18(203). P175-177.