

## CASE REPORT

### RECURRENCE OF HERPES ZOSTER IN AN IMMUNOCOMPETENT ADULT MALE

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Repeated and disseminated eruptions of herpes zoster are frequently detected in immunocompromised patients, but are rare in immuno-competent individuals. We report a case of recurrent herpes zoster in a young healthy male, who redeveloped herpes zoster in a different dermatome after one year.

**Keywords:** Herpes Zoster, Recurrent, Immunocompetent.

#### INTRODUCTION

Varicella Zoster Virus, a neurotropic human herpesvirus causes chicken pox and then remains latent for decades in cranial nerve, dorsal root and autonomic nervous system ganglia.<sup>1</sup> The virus gets reactivated after a variable period of time usually ranging from 5-40 years<sup>2</sup> in 15% patients<sup>3</sup> and causes herpes zoster. Herpes zoster is a painful, dermatomal eruption usually restricted to 1-3 dermatomes. Although a relatively common cause of morbidity especially in elderly, there are a few population-based studies of the natural history and epidemiology of herpes zoster. In a study conducted in 1995 the overall incidence of herpes zoster was found to be 215 per 100,000 person-years and did not vary by gender.<sup>2</sup> However, incidence has been shown to be greater in females in another study carried out in 2004.<sup>4</sup>

Repeated eruptions of herpes zoster have been commonly reported in immunocompromised patients especially those having lymphoma or other malignancies, Acquired Immune Deficiency Syndrome, Diabetes mellitus and patients on immunosuppressive therapy.<sup>5</sup> However, recurrences of herpes zoster are very rare in immunocompetent individuals.<sup>6</sup> Exact cause of recurrences in immunocompetent individuals is not known. Blocking of specific cell mediated immunity has been suggested.<sup>7</sup> Recurrent herpes zoster should be treated with systemic acyclovir or any other antiviral drug.

#### CASE REPORT

A 28 years old young male reported with 2 days history of a painful grouped vesicular eruption over the distribution of left T<sub>1</sub>, T<sub>2</sub> dermatomes. On dermatological examination, besides the grouped vesicular eruption, he was also having scar marks in the distribution of left T<sub>10</sub> dermatome (Fig-1). On questioning, he told that an year earlier, he developed similar painful eruption over left side of abdomen and back, which healed over about 02 weeks and left

behind scar marks. Old medical record of the patient revealed that thirteen months back, he suffered from herpes zoster, involving left T<sub>10</sub> dermatome and was treated symptomatically. Acyclovir or any other systemic anti-viral drug was not given to the patient. General health of the patient was good. He was not otherwise sick and had not taken any medicine during the last 3 months. Systemic examination did not reveal any abnormality. The patient was hospitalized and investigated thoroughly. Blood Complete Picture, Urine Routine Examination, Blood sugar, Liver Function Tests, Hepatitis 'B' surface antigen, Anti Hepatitis 'C' Virus antibodies, VDRL (Venereal Diseases Reference Laboratory), Anti Human Immunodeficiency Virus antibodies, X-rays chest and ultrasound abdomen were all within normal.

#### Figure-1: Recurrence of Herpes Zoster in an immunocompetent adult male

He was treated with tablets acyclovir 800 mg, 5 times a day for a period of 07 days, in addition to symptomatic treatment. The eruption remained confined to the involved dermatome only and no local or systemic complications developed. He remained afebrile and his cutaneous lesions healed gradually over a period of 02 weeks with minimal scarring. The patient was discharged on 10<sup>th</sup> day and advised for regular follow up in dermatology outpatient department.

## DISCUSSION

Cellular immunity is more important than humoral immunity, both for limiting the extent of primary infection with Varicella Zoster Virus as well as for preventing reactivation of the latent virus. Repeated and disseminated zoster eruptions are frequently detected in immunocompromised patients especially those with impaired cellular immunity.<sup>5</sup> People at risk are those having malignancy especially lymphoma, those on cytotoxic or immunosuppressive therapy & those infected with Human Immuno-deficiency Virus. On the other hand, second attacks of herpes zoster in immunocompetent individuals, although described, are rare.<sup>6</sup> The observation that most persons develop zoster only once, if at all, suggests that one episode of zoster may enhance immune response to the levels that are sufficient to prevent recurrences. The exact mechanism of recurrent herpes zoster in immunocompetent individuals is not known and general & Varicella Zoster specific immune investigations are unlikely to indicate a reason.<sup>8</sup> Blocking of cell mediated defenses by rising levels of specific antibodies after exposure to exogenous Varicella Zoster virus or by some other mechanism may be a possibility.<sup>7</sup>

Recurrent zoster may develop on the site of previous eruption or at a different site. The interval between first eruption and the recurrence may vary from 1 week to 30 years.<sup>1</sup>

Relapses should be treated with systemic acyclovir. However early relapses following shortly after the first attack of herpes zoster treated with acyclovir should be considered as a manifestation of

immunity disorder and such cases are treated with other anti-viral drugs.<sup>1</sup>

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