# **Scholars Journal of Medical Case Reports**

Abbreviated Key Title: Sch J Med Case Rep ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)

Journal homepage: https://saspublishers.com/journal/sjmcr/home

# A Case of Herpes Zoster with No History of Varicella

Lahlou F\*, El Fatoiki FZ, Hali F, Chiheb S

Dermatology-venereology's service, HUC Ibn Rochd, Casablanca, Morocco

\*Corresponding author: Lahlou F | Received: 18.03.2019 | Accepted: 27.03.2019 | Published: 30.03.2019

**DOI:** 10.36347/sjmcr.2019.v07i03.018

Abstract Case Report

Herpes zoster occurs due to reactivation of the latent varicella zoster virus and is usually a disease of the elderly. It is rare in healthy immunocompetent children, and when present, it is seen in immunocompromized children. We report a case of herpes zoster infection in a 3 years old immunocompetent child with no history of varicella. He was treated with acyclovir and had complete resolution of the lesions without any sequelae.

Keywords: Acyclovir, Childhood herpes zoster, Immunocompetent child, Maternel varicella, Varicella Zoster Virus.

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### Introduction

Herpes Zoster (HZ) is a viral skin disease that occurs after the reactivation of varicella zoster virus (VZV) which remains in dorsal sensory ganglia after primary varicella infection. Its occurrence in children is exceptional. We report a case of childhood herpes zoster.

#### **OBSERVATIONS**

A boy of 3 years old, with no history of varicella-like eruption involving the patient or the mother during pregnancy, presented to our consultation for multiple fluid-filled blisters. There was no history of taking any immunosuppressive medication like systemic steroids or anti-cancer drugs.

Physical examination revealed a healthy child with a temperature of 38°C. Cutaneous examination revealed unilateral, grouped vesiculobullous eruption with hemorrhagic crusts over an erythematous base involving the left T 10 dermatome (Fig. 1). 48h later the infant developed necrotic lesions (fig. 2). Our patient was diagnosed as Herpes Zoster based on detailed history and clinical examination. Hemogram was normal. Serology for HIV I and II and HSV 1 were negative. The VZV IgM antibody was  $700 \times$  by indirect immunofluorescence (normal 0-10) and the IgG was negative; the serology of the mother was negative.

Because of the severity of his zoster, he was treated with oral acyclovir (20 mg/kg every 6 h) for 10 days and analgesic. There was complete resolution of the lesions without any sequelae in 1week after onset,

without complications or sequelae. Post herpetic neuralgia was not observed during follow up.

#### **DISCUSSION**

Childhood herpes zoster is believed to be rare, though recent studies suggest increasing incidence in children. It occurs mainly in immunocompromised children or in children with varicella in utero. This case report emphasizes the rare occurrence of infantile herpes zoster without clinical evidence of VZV infection in the mother or apparent exposure in the child.

The particularity of our case report is the rarity of herpes zoster in children under 4 years, its extensive and necrotic character in an immunocompetent child and complete resolution of the lesions without any sequelae under antiviral treatment.

Ten cases of childhood herpes zoster were reported, seven of which occurred within a short span of six months, at a tertiary care level hospital in Pokhara, Nepal [1]. Only three of the ten children reported previous history of varicella infection and none was immunized against varicella.

The appearance of herpes zoster in a young child does not always imply an underlying immunodeficiency or malignancy. Childhood herpes zoster accounted for less than 1% of the total zoster cases in the past, recent reports show an increase in the number of cases in apparently healthy children [2]. So far, no studies have been done linking childhood herpes zoster with HIV, though there are many studies linking it with other immunocompromised conditions [3].



Fig-1: Grouped vesiculo bullous eruption involving the left T 10 dermatome



Fig-2: Grouped vesicles with necrotic lesions

A diagnosis of HZ is made by detailed clinical examination and confirmed by lab diagnosis by doing a Tzanck smear of scrapings from the floor of the vesicles that reveal multinucleated giant cells on direct microscopy. The other methods are by direct fluorescent antibody tests, presence of high or rising titers to VZV, or by culture studies. Detection of serum specific IgM by the indirect fluorescent antibody method is also used to confirm HZ [4]. Ideally, in childhood HZ, lymphocyte counts, CD4/CD8 ratio, and serum immunoglobulin levels have also to be estimated to rule out undetected concurrent immunosuppression.

It is imperative that HZ be differentiated from zosteriform herpes simplex by monomorphic vesicular lesions in the latter which is more common in children. The other vesicular dermatoses in the differential diagnosis include bullous impetigo, irritant contact dermatitis, bullous insect bite reaction, incontinentia pigmenti and phytodermatitis.

Acute neuropathic pain is the hallmark of HZ in adults. It was not observed in our case. Though lesional pruritus and pain may be present, the incidence of post herpetic neuralgia is negligible which the most common complication of HZ in adults.

## **CONCLUSION**

Herpes zoster should be evoked in the presence of suggestive symptomatology, even in the absence of any notion of maternel varicella during pregnancy or in postnatal period. Childhood zoster is a relatively mild disease with negligible prodromal symptoms, post herpetic neuralgia or other significant complications.

# Références

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