

Clinical Image

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Herpes zoster in an immunocompetent child: A case image

Carolina Figueiredo*; Joana Carreira; Ana Raposo; Maria Fernanda Gomes

Department of Pediatrics, Hospital Divino Espírito Santo of Ponta Delgada, Portugal.

***Corresponding Author: Carolina Figueiredo**

Department of Pediatrics, Hospital Divino Espírito Santo of Ponta Delgada, Portugal.

Email: carolinafigueiredo08@gmail.com

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Abstract

Herpes zoster (HZ) results from reactivation of latent varicella-zoster virus primary infection (varicella). This condition appears to be less common in children and to have a favorable outcome in immunocompetent children. The diagnosis is clinical and the characteristic exanthema involves grouped vesicles in a dermatomal distribution. The authors report the case of a 12th months-old male patient who presented to the Emergency Department with an exuberant rash in the right lower limb with a clinical evolution suggestive of HZ and a history of varicella in his fifth month of life.

Introduction

A previously healthy 12th months-old-boy was observed in emergency department due to an exuberant exanthema in the right lower limb. Initially, the cutaneous lesions were described as erythematous papules, raising the suspicion of strophulus infantum (Figure 1). No prodromal symptoms had been described. Around 48 hours later, several vesicles on an erythematous base erupted and became progressively clustered and sprawling for new areas, occupying three contiguous dermatomes (Figures 2 and 3). At this point, parents reported discomfort and itching.

What is your diagnosis?



Figure 1: Erythematous papules on the right leg and thigh.



Figure 2: Grouped vesicles on an erythematous base on the right leg and thigh.



Figure 3: Grouped and confluent vesicles on an erythematous base on the right leg and thigh.

Diagnosis: Herpes zoster in a presumed immunocompetent 12th month-old-boy.

Patient's management: The patient was treated with oral acyclovir (20 mg/Kg every 6 hours for 5 days) and flucloxacillin (80 mg/Kg/day, every 8 hours, for 7 days). Three days after the beginning of acyclovir, the lesions improved, evolving to a crusted and non-inflammatory appearance (Figures 5 and 6). Paracetamol and dimetindene were administered with relief of discomfort and itching.



Figure 4: Crusted lesion on a less erythematous base 72h after treatment with acyclovir.



Figure 5: Crusted and not exudative lesions, on 5th and last day of treatment with acyclovir.

Discussion

Primary infection of varicella-zoster virus (VZV) – chickenpox – is one of the most common and widespread infectious diseases in paediatric age, but the same does not happen in Herpes zoster (HZ). Although HZ incidence in immunocompetent children had initially been considered to be low and usually presenting with mild symptoms, recent reports have shown a relatively higher

incidence than in the past [1-4]. In the present case, personal history was unremarkable, namely there were no symptoms and signs of primary immunodeficiency disorders, like recurrent or atypical microbial infections. The vaccine national plan was updated and completed with extra-plan vaccines against meningococcus serotypes A, C, W, and Y and rotavirus. The patient had chickenpox at 5 months of age, after contact with an older sister. In fact, it is well documented that the early exposure to VZV infection, during the intrauterine period or the first year of life, is a risk factor for HZ. This can be explained by a decreased development of cellular and humoral immunity to VZV, when infection occurs early in life [5].

The HZ diagnosis is clinical: It is characterized by group vesicles, usually starting as small macules. The dermatomal distribution clinches the diagnosis, as highlighted in the images above. Prognosis is good once symptoms are frequently mild and post zoster neuralgia rarely occurs in children [2,6]. Specific treatment with acyclovir must be considered in immunocompromised patients, when ophthalmologic involvement is present or when moderate to severe rash is present, as in the present case [6].

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