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CASO CLÍNICO / *CLINICAL CASE*

Herpes Zóster disseminado numa idosa imunocompetente

Disseminated herpes zoster in an immunocompetent elderly woman

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/ Resumo

O Herpes Zóster cutâneo disseminado tem sido descrito em doentes imunodeprimidos, mas é raro em indivíduos saudáveis. Descrevemos um caso de herpes zóster cutâneo disseminado numa mulher idosa, sem patologia imunossupressora conhecida, que foi medicada eficazmente com Aciclovir endovenoso. Esta doença pode ocorrer num hospedeiro imunocompetente devendo ser diagnosticada e tratada precocemente para evitar a morbilidade associada a complicações.

Palavras-chave: herpes Zóster, complicações, idosos

/ Abstract

Disseminated cutaneous herpes zoster has been described in immunocompromised patients but it is uncommon in healthy individuals. Herein, we report a case of disseminated cutaneous herpes zoster in an elderly woman, in the absence of any known immunosuppression, which was treated successfully with intravenous Acyclovir. This condition can occur in an immunocompetent host and should be promptly recognized and treated to prevent the morbidity associated to complications.

Keywords: *herpes zoster, complications, elderly*

/ Introduction

Herpes zoster is a clinical syndrome which usually presents with a prodrome of burning pain and subsequently a localized, vesicular rash in a dermatomal distribution. More extensive skin involvement of several adjacent dermatomes is called multi-dermatomal zoster, whereas spread to a non-adjacent dermatome is known as zoster duplex unilateralis or bilateralis. Disseminated herpes zoster has been defined as more than 20 vesicles outside the area of the primary and adjacent dermatomes. Disseminated herpes zoster in otherwise healthy persons who are not on immunosuppressive therapy or have no underlying malignancy is rare.

/ Case Report

An 89-year-old woman presented with a 3-day history of vesicular eruption in her left buttock associated with burning pain over the affected region. The patient did not have a history of chickenpox during childhood or any recent exposure to it. There was no past record of diabetes, cardiopulmonary disease or cancer and she had not been on immunosuppressive therapy. On examination, the patient was afebrile (36.4°C). She had vesicles and pustules over her left suprapubic and gluteal area (Figure 1). Vesicles were also present over her back (Figure 2). Her right lower eyelid was swollen and red, but an ophthalmological evaluation showed no corneal involvement. The other physical examination was irrelevant. Leukocyte count was 6700/µL with 1500 lymphocytes; T cell count was $CD4^+$ 773 cell/µL and $CD8^+$ 590 cells/µL. Renal and liver function test and chest x-ray were normal. Serology for Human Immunodeficiency Virus (HIV) 1 and 2, Hepatitis A, B and C were negative. Vesicle fluid from the buttock and back were positive for varicella-zoster virus and negative for herpes simplex by polymerase chain reaction. The patient was started on intravenous Acyclovir 800mg TID and tramadol 100mg TID with significant clinical improvement. Immunoglobulin level and serum protein electrophoresis were within normal range. Endoscopic studies and thoracic, abdominal and pelvic computed tomography were negative for malignancy. She was dismissed with oral antiviral to complete 14 days of treatment.

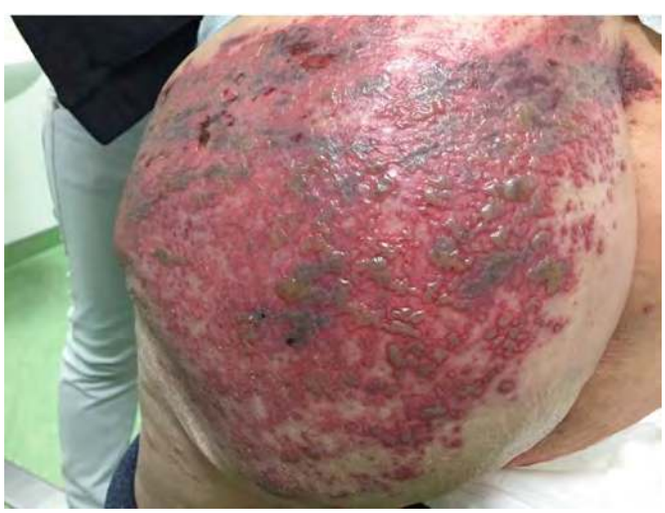

Figure 1 – Vesicles and pustules in the left suprapubic area and buttock.

/ Discussion

Varicella-zoster virus (VZV) is an exclusively human double-stranded DNA virus of the *Herpesviridae* family. The primary VZV infection, called varicella or chickenpox, most commonly strikes children, typically causing a self-limited, vesicular eruption. After the initial infection, VZV may be dormant in the sensory ganglia of the cranial nerve or in the dorsal root ganglia. Varicella zoster virus-specific cell-mediated immunity (CMI) is required to halt the virus reactivation. Among immunocompetent patients, herpes zoster is considered a self-limited, localized infection commonly complicated by post-herpetic neuralgia. Disseminated cutaneous herpes zoster has been described in persons with immunosuppression due to HIV, hematological malignancy or chemotherapy and reported to be as common as 10% to 40%.[1,2] However, it is uncommon to see dissemination of zoster in healthy individuals. With aging, the VZV-specific

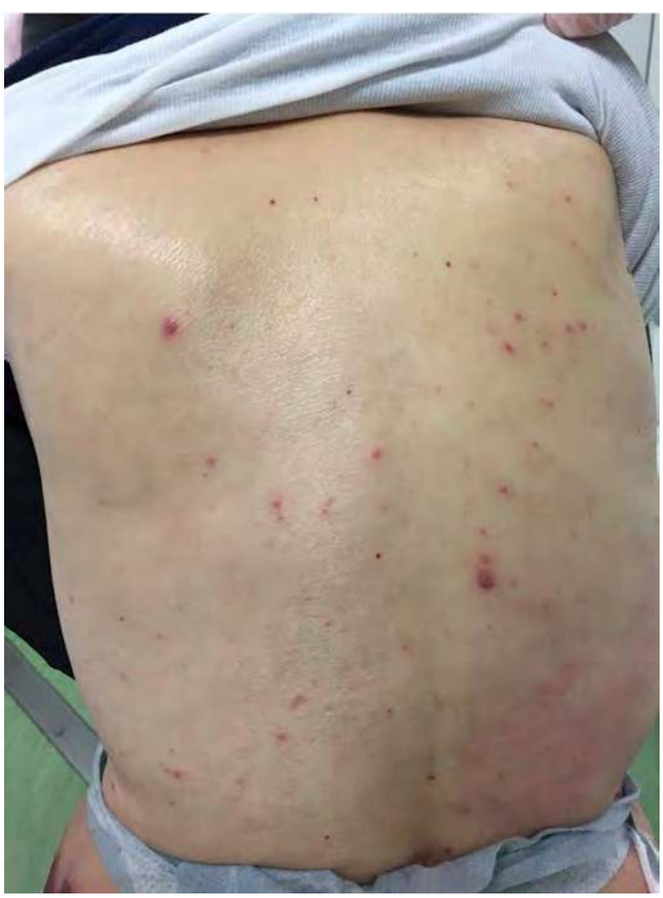

Figure 2 – Vesicles over the patients back.

CMI declines, especially after age of 60.[3-5] This decline in CMI correlates with increased incidence of herpes zoster in the elderly population.[6] Elderly patients should be recognized as a group in whom the risk of dissemination is higher than the average immunocompetent host.[7] Some chronic conditions were associated with an increased risk of herpes zoster such as allergic rhinitis, chronic obstructive pulmonary disease (COPD), coronary artery disease, cerebrovascular accident, depression, diabetes, hyperlipidemia, hypothyroidism and osteoarthritis.[8] In patients with COPD, treatment of acute exacerbations entails systemic steroid which could attenuate the CMI, however it is not clear if previous remote steroid treatment may affect VZV-specific immunity.[9,10] Patients with cutaneous dissemination of VZV are at risk of infection of visceral organs, particularly lungs, liver and brain. Other complications include corneal ulceration and post herpetic neuralgia.[1] The important goals of therapy are to lessen the severity and duration of pain associated with the disease. As the cutaneous dissemination of herpes zoster is thought to be via viremia, patients are often treated with intravenous antivirals (Acyclovir is usually preferred) to prevent cutaneous and visceral dissemination. Acyclovir, Valacyclovir and Famciclovir are available as oral antiviral drugs.[9] Analgesic helps to relieve the pain. In conclusion, disseminated cutaneous herpes zoster can occur in any immunocompetent host, although it is more predominant in older patients. Age-related decline of VZV CMI seems to be one of the most important risk factor for VZV reactivation and subsequent herpes zoster.[11] Chronic comorbidities may play additional role and further research is needed to identify the exact mechanisms by which they affect VZV CMI. Identification and aggressive treatment of disseminated herpes zoster infection in elderly immunocompetent hosts is important.

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