

Post-herpetic neuralgia in unusual anatomic area. Case report*

Neuralgia pós-herpética em área anatômica pouco usual. Relato de caso

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SUMMARY

BACKGROUND AND OBJECTIVES: Herpes zoster (HZ) is caused by the reactivation of the varicella-zoster virus in cranial nerves and spinal root ganglia, in general triggered decades after the primary varicella infection. Its most common complication is post-herpetic neuralgia (PHN), characterized by chronic neuropathic pain and starting one to six months after the healing of HZ skin rashes. This study aimed at reporting a case of post-herpetic neuralgia in unusual anatomic area.

CASE REPORT: Female patient, 55 years old, with diagnosis of HZ evolving to post-herpetic neuralgia. Patient complains of severe and persistent burning pain initially located throughout her left lower limb (LLL). At physical evaluation she presented LLL allodynia and hyperalgesia up to the root of the thigh.

CONCLUSION: HZ usually involves face and chest dermatomes. However, one has to consider unusual anatomic areas to provide early diagnosis and treatment, thus preventing complications.

Keywords: Herpes zoster, Post-herpetic neuralgia.

RESUMO

JUSTIFICATIVA E OBJETIVOS: O herpes zoster (HZ) é uma doença causada pela reativação do vírus

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varicela-zoster nos nervos cranianos e nos gânglios das raízes espinhais dorsais, geralmente décadas depois da infecção primária de varicela. Sua complicação mais comum é a neuralgia pós-herpética (NPH), que é caracterizada por dor neuropática crônica e que se inicia entre um e seis meses após a cura das erupções cutâneas do HZ. O objetivo deste estudo foi relatar um caso de quadro de neuralgia pós-herpética em área anatômica pouco comum.

RELATO DO CASO: Paciente do sexo feminino, 55 anos, com diagnóstico de HZ, que evoluiu para neuralgia pós-herpética. A paciente queixa-se de dor intensa e persistente em queimação localizada inicialmente em toda a extensão do membro inferior esquerdo (MIE). Ao exame físico apresentava alodínia e hiperalgesia no MIE até a raiz da coxa.

CONCLUSÃO: O HZ apresenta-se mais frequentemente envolvendo os dermatomos facial e torácico. No entanto, deve-se sempre lembrar as áreas anatômicas pouco frequentes, para que seja realizado precocemente o diagnóstico e o tratamento, evitando assim as complicações.

Descritores: Herpes zoster, Neuralgia pós-herpética.

INTRODUCTION

Herpes zoster (HZ) is caused by the reactivation of the varicella-zoster virus in cranial nerves and spinal root ganglia, in general triggered decades after the primary varicella infection^{1,2}. The immune system keeps the virus under control, but when defenses are weakened, there is the onset of the disease. Reactivation occurs mainly in immunocompromised individuals by other diseases, such as cancer, acquired immunodeficiency syndrome, post-transplantation immunosuppression, chemotherapy and also in immunocompetent elderly patients³⁻⁸.

HZ signs and symptoms start with a mild to moderate skin burning prodrome, often followed by fever, chills, headache and malaise¹. This is observed from one

to four days before the development of skin lesions. Clinical presentation evolves to a maculopapular rash which is transformed in rounded vesicles until the final stage of crust⁹. Skin changes follow a classic pattern of peripheral distribution along involved nerves, with unilateral distribution circumscribed to one dermatome^{4,10}. In general, only one dermatome is affected; however, there may be the involvement of two or more. There is predominance of chest and face⁷. In general, the exanthema resolves in two to four weeks. Varicella zoster virus may reach cranial nerves, leading to complications. The involvement of the trigeminal nerve may cause face, mouth, eyes or tongue changes. The ophthalmic branch is the most commonly affected, which may lead to blindness. The involvement of maxillary and mandibular branches may injure teeth and bones. Ramsay-Hunt syndrome is an uncommon manifestation and involves the geniculate ganglion of the facial nerve, causing earache and facial paralysis. There may also be vestibulocochlear nerve involvement¹¹.

Most common HZ complication is post-herpetic neuralgia (PHN)¹². HZ and PHN are clinically diagnosed. HZ is treated with antiviral drugs which accelerate skin rash healing, decrease pain intensity² and the incidence of post-herpetic neuralgia (PHN)^{8,13-16}.

PHN is characterized by chronic neuropathic pain starting from one to six months after skin rash healing and may last for years. PHN is a common cause of chronic pain in elderly individuals¹⁷. The incidence of PHN varies from 10% to 20% in immunocompetent adults^{11,18}.

Anatomic PHN distribution follows the pattern of dermatomes affected by HZ, being dermatomes T₃-L₃ the most commonly involved¹¹. In 50% to 60% of cases, HZ affects chest and face and sacral dermatomes are involved in just 5%¹⁹.

Pain is characterized by burning, tingling or stinging and has variable intensity sometimes being described as unbearable. Hyperalgesia, hyperesthesia or allodynia may also be associated²⁰. Excruciating pain in bite or sting has been more often reported for acute HZ and burning pain is more common in PHN patients¹¹.

PHN pain is chronic, however with pain-free periods or with milder symptoms, alternating with exacerbation episodes. Treatment consists of pain relief and control drugs. First line drugs for PHN treatment are: anticonvulsants and tricyclic antidepressants. Opioids may also be used as analgesics².

This study aimed at describing a clinical presentation of PHN developed in left lower limb (LLL) in unusual anatomic area.

CASE REPORT

Female patient, 55 years old, who looked for a basic health unit with small bullous lesions on the left sole of the foot, being prescribed antibiotics and non-steroid anti-inflammatory drug (NSAID).

Patient was seen by a dermatologist who has diagnosed HZ in the healing phase of the lesions (Figure 1). Patient had severe burning pain throughout the left lower limb (LLL), being referred to the pain service of the Teaching Hospital Walter Cantídio. She was under amitriptyline (75 mg/day) however without improvement. Patient referred persistent severe pain = 10 by the visual analog scale (VAS); burning pain in shock which would worsen at night. At physical evaluation she presented allodynia and hyperalgesia in LLL until the root of the thigh.



Figure 1 – Lesions being healed four weeks after onset of presentation.

There were few crust-type skin lesions, restricted to the sole of the left foot. Carbamazepine (400 mg/day) and codeine (30 mg) were started every 6 hours. Patient returned with no improvement. So, carbamazepine was

replaced by gabapentin (900 mg/day) and a series of sciatic nerve peripheral blocks was performed. There has been clinical improvement with decreased pain intensity (VAS = 7) and restriction of the affected area to dorsum and sole of left foot. The option was to continue with peripheral blocks, starting a new series, this time with pentablocks. Pain was restricted to left foot toes, however with allodynia and shock in this region, especially at night. Gabapentin was replaced by pregabalin (150 mg/day), however pain intensity and characteristics have not changed. Symptoms were totally resolved with analgesic block by the pentablock technique with 0.25% bupivacaine (10 mL) and clonidine (75 µg), but returned in 48-72 hours.

After six months of treatment, duloxetine (60 mg/day) was introduced and patient had significant improvement (VAS = 2). Pregabalin was withdrawn and patient was maintained under observation with weekly visits to the outpatient setting.

Pain alternated improvement and exacerbation periods in left foot toes. Pain exacerbation is followed by psychosocial difficulties. Currently, patient is still under duloxetine (60 mg/day) and has started regular psychological follow-up.

DISCUSSION

HZ is a self-limited disease, however there may be complications and permanent sequelae. In the prodromic period, its diagnosis is difficult because it may take up to three weeks for the appearance of skin lesions.

This delays the beginning of the treatment. HZ affects especially chest and face⁷ and lower limbs are a more uncommon location of the disease. In our case, the anatomic HZ manifestation in an unusual area was critical for the late diagnosis, which has prevented the treatment with antiviral drugs in the acute phase.

HZ is treated with antiviral drugs which accelerate skin rash healing, decrease pain intensity and the incidence of PHN, which is the most common HZ complication^{2,4,7}. The relevance of early antiviral drugs is controversial, however studies indicate that the incidence of PHN is increased in proportion and severity when the treatment of the acute phase of HZ is inadequate¹⁷. However, some patients shall develop PHN even after having adequately received antiviral drugs³.

PHN treatment difficulties and negative impact are considerable for the personal and social life of patients because they affect sleep and the ability to work and perform physical activities, thus affecting their

quality of life. So, one must pay attention to signs and symptoms in unusual locations for HZ, since early diagnosis and treatment are critical in the attempt to optimize pain approach during the acute phase and to prevent its chronicity.

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