NECROTIC HERPES ZOSTER IN THE ULNAR NERVE DISTRIBUTION: A CASE REPORT

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INTRODUCTION

Varicella-zoster virus (VZV) is a double-stranded DNA neurotropic virus that belongs to the herpes virus family and can cause two distinct syndromes: primary infection presenting as varicella, mainly occurring in children without previous exposure to VZV and reactivation of the latent virus. The reactivation VZV, that could remain dormant within dorsal root ganglia after the patient's initial exposure to the virus in the form of varicella, results in herpes zoster (HZ). Herpes zoster clinically presents with a unilateral, painful, vesicular eruption usually distributed to one or two adjacent thoracic dermatomes or cranial nerves[1]. As it is rarely seen confined to the upper limbs, few reports of herpes zoster involving the ulnar nerve exist in the literature, even fewer with necrotic complications and none associating both.

CASE REPORT

A 45-year-old man seeks care at a basic health unit with pain in the right posterior cubital region, accompanied by pruritus, paraesthesia, hyperemia, fever, myalgia and vesicle-bullous lesions in ulnar nerve topography (Figure 1). The pain was acute, intense, burning and continuous, which made it impossible for him to sleep; He was medicated with Aciclovir 800mg. On the fourth day of treatment, the patient developed areas of necrosis that followed the ulnar nerve path. He sought care at a regional hospital and, after a multiprofessional evaluation, the patient was admitted for clinical and surgical treatment.

Upon examination, crusted ulcers, similar to bedsores, were observed, extending into a dermatomal distribution of the ulnar nerve. The patient had decreased sensitivity to touch and paraesthesia in the region. The movements of the fourth and fifth fingers were not painful, and the range of motion and strength were preserved. The upper limb did not present any visible deformity. Tinel and Froment's signs were negative. Based on the history and clinical findings, we made the diagnosis of necrotic ulnar HZ.

As a previous pathological history, the patient is diabetic, which may justify reduced immunity. He reports an episode of chicken pox in childhood and denies other reactivations of the herpes zoster virus.

Due to the difficulty in the local infrastructure, it was not possible to culture the lesions and empirically prescribed ciprofloxacin and metronidazole for 7 days in addition to continuing treatment with Aciclovir.

After evaluation by the general surgery team, debridement of the lesions was performed. The patient evolved with an improvement in his general condition. After 14 days the patient was free of injuries. Two months later, a return visit was performed and the patient did not complain of post-herpetic neuralgia and referred total remission.

DISCUSSION

Herpes zoster clinically presents with a unilateral, painful, vesicular eruption usually distributed to one or two adjacent thoracic dermatomes or cranial nerves. As it is rarely seen confined to the upper limbs, few reports of herpes zoster involving the ulnar nerve exist in the literature, even fewer with necrotic complications and none

associating both. Decreased cell-mediated immunity in immunosuppressed patients greatly increases the risk of developing herpes zoster[2]. The patient's diabetes could justify the immunosuppression.

There are several serious complications of Herpes Zoster, including encephalitis, myelitis, neuritis, and acute retinal necrosis. However, the most common and feared is post-herpetic neuralgia. The pain can persist for months or even years. Only a limited number of case reports about HZ complicated with necrosis have been published in the literature so far[3,4]. In addition, we assume our case as an exceptional example of necrotic HZ since the ulnar nerve presentation is rare and was never reported in association with this uncommon complication.

The most prevalent infectious agent of skin infections is Escherichia coli, but bacteria of the genera Streptococcus, Bacteroides, Enterobacter, Staphylococcus, including MRSA, Enterococcus, Pseudomonas, Corynebacterium, Klebsiella may be present alone or in combination on cases like this. Ciprofloxacin and metronidazole have been empirically prescribed to covers that pathogens[5].

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Figure 1: Ulnar zoster with necrotic evolution