Herpes zoster is a viral disease presenting with vesicular eruptions that are usually preceded by pain and erythema. Herpes zoster can be seen in any dermatome of the body but most commonly appears in the thoracic region. Herpes zoster virus is typically transmitted from person to person through direct contact. The virus remains dormant in the dorsal ganglion of the affected individual throughout his or her lifetime. Herpes zoster reactivation commonly occurs in elderly people due to normal age-related decline in cell-mediated immunity. Postherpetic neuralgia is the most common complication and is defined as persistent pain or dysesthesia 1 month after resolution of the herpetic rash.

This article describes a healthy 51-year-old woman who experienced a burning sensation and shooting pain along the ulnar dorsal cutaneous nerve. Ten days after the onset of pain, she developed cutaneous vesicular eruption and decreased light-touch sensation. Wrist and fourth and fifth finger range of motion were painful and slightly limited. Muscle strength was normal. Nerve conduction studies indicated an ulnar dorsal cutaneous nerve lesion. She was treated with anti-inflammatory and antibiotic drugs and the use of a short-arm resting splint. At 5-month follow-up, she reported no residual pain, numbness, or weakness.

Herpes zoster in the upper extremity may be mistaken for entrapment neuropathies and diseases characterized by skin eruptions; ulnar nerve zoster reactivation is rarely seen. The authors report an uncommon ulnar dorsal cutaneous nerve herpes zoster reactivation. Clinicians should be aware of this virus during patients’ initial evaluation.

The authors are from the Department of Orthopaedics and Traumatology (MK), Mevlana University, Konya; the Department of Orthopaedics and Traumatology (SHB), Karabük University, Karabük; and the Department of Orthopaedics and Traumatology (EE, CK), Bakırköy Dr. Sadi Komuk Training and Research Hospital, Istanbul, Turkey.

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Correspondence should be addressed to: Serdar Hakan Basaran, MD, Karabük Üniversitesi Tip Fakültesi Ortopedi ve Travmatoloji Anabilim Dalı, Balıklakayası Mevkii 78050, Karabük, Türkiye (drserdarhakan@gmail.com).

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Varicella-zoster virus causes 2 syndromes: primary infection presents as varicella (ie, chickenpox), which occurs in children, and reactivation of the latent varicella-zoster virus in dorsal root ganglia causes herpes zoster (ie, shingles) in adults. This second clinical manifestation usually begins with an itch, tenderness, or pain that is followed by the appearance of papules or plaques. These plaques quickly change into blisters on 1 dermatome. Herpes zoster is more common in patients older than 60 years. This disease can be seen in any dermatome of the body but most commonly appears in the thoracic region.

Few cases in the literature report ulnar nerve zoster reactivation. Most patients had segmental zoster paresis of the upper extremity. Pure ulnar dorsal cutaneous nerve zoster reactivation is reported in the current patient.

**Case Report**

A healthy 51-year-old woman presented with a history of a burning sensation and shooting pain along the ulnar and dorsal aspect to her right wrist and hand. After 10 days of pain, she noticed a cutaneous vesicular eruption in the same location. No history of trauma or systemic illness was reported. She could not remember experiencing herpes zoster previously.

Physical examination of the patient revealed hyperpigmented macular lesions and erythematous vesicles in the dorsal cutaneous ulnar nerve distribution (Figure). Decreased light-touch sensation was also observed in the same distribution. Wrist and fourth and fifth finger range of motion were painful and slightly limited. Muscle strength was normal. No deformity was observed on her extremity. Tinel’s sign was negative on the cubital tunnel and ulnar tunnel area. Froment’s sign was negative.

Nerve conduction studies revealed low sensory nerve action potential amplitudes for the right dorsal cutaneous ulnar nerve compared with the contralateral side. Needle electromyography demonstrated clinically nonsignificant denervation potential for the first interosseous muscle and normal findings for the abductor digiti quinti muscle. Motor unit potentials were normal.

After dermatologist consultation, anti-inflammatory and antibiotic treatments were started. A short-arm resting splint was used to avoid pain with range of motion; the splint was removed after 3 weeks. At 5-month follow-up, her wrist and hand were painless and had full range of motion. She reported no residual pain, numbness, or weakness.

**Discussion**

Herpes zoster is characterized by a unilateral, painful vesicular eruption in a dermatomal distribution and is usually confined to 1 or more thoracic dermatomes. Herpes zoster is rarely seen in the upper limbs. Few articles in the literature have reported herpes zoster in the ulnar nerve. The current authors reported a healthy 51-year-old woman with pure ulnar dorsal cutaneous nerve zoster reactivation.

Herpes zoster is typically transmitted from person to person through direct contact. The virus then lies dormant in the dorsal root ganglion and is probably reactivated often, but competent cell-mediated immunity prevents clinical disease. Patients with decreased cell-mediated immunity due to advanced age and who are immunosuppressed are at an increased risk of developing herpes zoster. In addition, patients with neoplastic diseases and organ-transplant recipients who are taking immunosuppressive drugs are at risk for developing herpes zoster. The current patient reported no disease that would cause immunosuppression.

The differential diagnosis of herpes zoster should be considered for patients presenting with skin eruptions, psoriasis, inflammatory verrucous epidermal nevus, and acute eczema. The disease is usually diagnosed clinically. Dermatomal distribution of characteristic vesicular lesions and erythematous maculopapular rash seen in herpes zoster are indications for a diagnosis of herpes zoster. Laboratory diagnostic methods are varicella-zoster virus tissue culture, polymerase chain reaction, and direct fluorescent antibody staining of varicella-zoster virus–infected cells.

The prognosis of herpes zoster is generally good. Postherpetic neuralgia is a common complication of herpes zoster. Postherpetic neuralgia is defined as persistent pain or dyesthesias 1 month after rash resolution. However, in some patients, the pain persists for months or years. Other serious complications are encephalitis, myelitis, neuritis (cranial and peripheral nerves), and acute retinal necrosis. In the literature, some patients of upper-limb herpes zoster had concomitant paresis or paralysis. Subclinical motor involvement is common, which is most likely unrecognized and undiagnosed. However, motor involvement in herpes zoster is easily diagnosed by electromyography. The pain of herpes zoster usually masks paresis. In examination of the current patient, no motor involvement was present.

![Figure: Photographs showing the hyperpigmented macular lesions and erythematous vesicles found on the dorsum of the hand and wrist (A) and the lesions seen in the dorsal cutaneous ulnar nerve distribution.](image)
found clinically, but electromyography demonstrated nonsignificant denervation potential for the first interosseous muscle. Acyclovir, valacyclovir, and famciclovir are usually prescribed in the antiviral treatment of herpes zoster infection. These drugs result in an acceleration of lesion healing and a decrease in the duration and severity of acute pain.\textsuperscript{10,11,13} The use of corticosteroids for herpes zoster with concomitant antiviral therapy is recommended.\textsuperscript{13} Combination therapy results in an improved quality of life. Cutaneous lesions should be kept clean and dry to prevent the development of a bacterial superinfection. In addition, sterile, non-adhesive, and nonocclusive dressings are placed over cutaneous lesions. Patients also require analgesics or, sometimes, strong opioids due to neuralgic pain. The current authors provided symptomatic treatment to their patient. One month after the onset of symptoms, her rash resolved and she reported no pain.

**Conclusion**

Herpes zoster is uncommon in the upper extremity and may be confused with entrapment neuropathies and diseases characterized by skin eruptions. The diagnosis of herpes zoster is usually made clinically, but electrophysiological studies may be useful in atypical cases.

**References**