

# A Case Report: Herpes Zoster With Sacral Involvement

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## Abstract

**Introduction:** The Varicella Zoster Virus (VZV) is a member of the herpes virus family. It is usually characterized with neuralgia which is accompanied by painful vesicles that involve one side or more than one neighboring dermatome regions.

**Case:** The 77-year-old male patient visited the emergency service with the complaint of pain in the right gluteal region that had been going on for the last 2 days. The physical examination of the patient revealed diffuse vesicular-pustular lesions in the right sacral (gluteal) region. The treatment of the patient was started by the department of dermatology with valaciclovir, and the patient was discharged with recommendations.

**Discussion:** Studies that have been carried out so far on HZ showed that the probability of having HZ increases noticeably by aging. While virus-specific cellular immunity has a very important place in controlling viral activation and dissemination, VZV infections may progress more severely in patients with weakened immune systems. According to other studies in the literature, the most frequently involved region is the thoracic region, while it is followed by the cervical, lumbar and sacral regions. As a result of antiviral treatments, reduction was observed in HZ rashes and severity of pain. Acyclovir, valaciclovir, brivudine and famciclovir are drugs that may be used in treatment of HZ infections, while the effects and safety of these drugs are similar.

**Conclusion:** As a consequence, it should be kept mind that HZ, which develops in geriatric patients and individuals with weaker immune systems, may also appear with sacral region involvement, which is rarer, in addition to its typical regions of involvement.

**Keywords:** Sacral pain, varicella zoster

## Introduction

The Varicella Zoster Virus (VZV) is a member of the herpes virus family<sup>1</sup>. Primary VZV infection stays latent in the posterior root and cranial nerve ganglia. It is usually characterized with neuralgia which is accompanied by painful vesicles that involve one side or more than one neighboring dermatome regions. Decreased immune responses that are specific to viruses that develop due to aging, immunosuppressive diseases or medical treatments usually lead to an increased in the risk of HZ (Herpes Zoster)<sup>2</sup>. HZ prevalently involves the cervical, trigeminal and lumbar regions, while it occasionally involves the sacral region. In our article, we aimed to present a case that had sacral involvement, which is a more rarely observed form of HZ.

## Case

The 77-year-old male patient visited the emergency service with the complaint of pain in the right gluteal region that had

been going on for the last 2 days. The physical examination of the patient revealed diffuse vesicular-pustular lesions in the right sacral (gluteal) region (Figure-1). The vital parameters of the patient were as BP: 140/90 mmHg, temperature: 36.7 °C and heart rate: 76/min. The patient had a history



**Figure-1:** The vesicular-pustular lesions in the right sacral region of the patient

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**Received:** 05.03.2020 • **Accepted:** 30.03.2020

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of diabetes mellitus. In the blood tests of the patient, hemogram was normal, glucose among the biochemical analysis parameters was 210 mg/dL, and the other values of the patient were normal. Additionally, the C-reactive protein value of the patient was 1.43 mg/dL (normal range: 0-0.5 mg/dL). With the diagnosis of HZ, dermatology consultation was requested for the patient. The treatment of the patient was started by the department of dermatology with valaciclovir, and the patient was discharged with recommendations.

## Discussion

Studies that have been carried out so far on HZ showed that the probability of having HZ increases noticeably by aging. The incidence of HZ increases in the age range of 50 to 60 years, and this increase becomes more noticeable over the age of 60<sup>3,4,5</sup>. Decreased cellular immunity is one of the well-defined risk factors in HZ development. While virus-specific cellular immunity has a very important place in controlling viral activation and dissemination, VZV infections may progress more severely in patients with weakened immune systems<sup>6</sup>. It was reported that higher numbers of mucocutaneous lesions develop and recovery takes longer in immunosuppressed patients in comparison to normal patients<sup>7</sup>. The typical regions of involvement in HZ were reported from the most prevalent to the least asthethoracic (53%), cervical (20%), ophthalmic (15%) and lumbosacral (11%) regions<sup>7,8</sup>. According to other studies in the literature, the most frequently involved region is the thoracic region, while it is followed by the cervical, lumbar and sacral regions. We are reporting on an HZ case that had sacral involvement. In VZV infections, the diagnosis is characteristically made by finding vesicles that have formed groups on the erythematous base in the sensory nerve dermatome. In our patient, there were vesicular regions in the form of groups in the right sacral (gluteal) region.

The immune system is important in prevention of recurrent HZ attacks. In individuals with suppressed immune system, the disease may lead to viremia in addition to wider-spread and severe rash on the skin. In such cases, systemic dissemination may occur as a result of VZV reactivation without displaying skin-related symptoms. While recovery from the disease is possible in 1-2 weeks in individuals with normal immune systems, HZ may last 2-4 weeks if untreated in those with malign diseases or history of organ transplantation<sup>9</sup>. A study by Chang et al. on HZ patients reported neurological complication rate to be 11.8%, while the most frequent complications were Ramsay Hunt syndrome

and segmental extremity paresis<sup>10</sup>. As a result of antiviral treatments, reduction was observed in HZ rashes and severity of pain. Acyclovir, valaciclovir, brivudine and famciclovir are drugs that may be used in treatment of HZ infections, while the effects and safety of these drugs are similar<sup>11</sup>.

## Conclusion

As a consequence, it should be kept mind that HZ, which develops in geriatric patients and individuals with weaker immune systems, may also appear with sacral region involvement, which is rarer, in addition to its typical regions of involvement.

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