



> THE PATIENT

27-year-old pregnant woman

> SIGNS & SYMPTOMS

- Burning pain from chest to back
- Allodynia and hyperesthesia
- Extreme sensitivity at the left T5 dermatome

CASE REPORT

ONLINE EXCLUSIVE

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> THE CASE

A 27-year-old woman in the 21st week of her first pregnancy came to our clinic complaining of a constant burning pain that spread around her left chest wall to her back. She graded the pain as a 10 on a 0 to 10 visual analog scale. The pain, which began 3 months earlier, became worse when she took a deep breath, ate, or walked, but was alleviated by applying warm compresses. Our patient hadn't slept well since the pain began. Her medical history was noteworthy for chickenpox at age 5.

During the physical examination, palpating her left upper abdominal quadrant and left lower chest wall elicited tenderness. We noted allodynia and hyperesthesia in these regions, and the left T5 dermatome revealed extreme sensitivity.

THE DIAGNOSIS

We decided to test for antibodies to the varicella-zoster virus (VZV) based on the location of the pain along a dermatome. A serum anti-VZV immunoglobulin G (IgG) level was high at 1.9. Since our patient hadn't been vaccinated against VZV, her high IgG level may have been the result of reactivation of the virus. Based on this test result and our patient's history and physical exam findings (ie, neuropathic pain along a dermatome without a typical herpes zoster rash), we diagnosed zoster sine herpete (ZSH).

DISCUSSION

One million new cases of herpes zoster (shingles) are diagnosed in the United States each year, with a rate of 3 to 4 cases per 1000 people.¹ One in 3 patients develops postherpetic neuralgia, depending on age and immunocompetence.¹

In ZSH, the neuropathic pain of herpes zoster occurs without the typical zoster rash.² Since the rash is absent, the diagnosis is often missed. The incidence of ZSH is unknown.

Although many pregnant women suffer from thoracic and/or abdominal neuropathic pain, there are no reports in the literature that describe ZSH in pregnant women.³

The appropriate diagnostic tests for ZSH are polymerase chain reaction for VZV DNA and anti-VZV IgG.^{2,4-7} A definitive diagnosis can be reached by identifying herpes zoster DNA in cerebrospinal fluid (CSF) and organism-specific immunoglobulins. However, a high titer of serum IgG antibodies or a positive IgM antibodies test typically provides a high degree of certainty for the diagnosis.⁸ For our patient, we decided not to test her CSF because we felt that her clinical course and positive IgG test were sufficient to establish the diagnosis.

■ **The differential diagnosis** of radicular pain during pregnancy includes cutaneous nerve entrapment. The expanding uterus could increase pressure on cutaneous nerves in the abdominal wall and cause pain. Although nerve entrapment would be expected

to cause impingement and sometimes hypoesthesia, ZSH usually causes allodynia and hyperesthesia, as was the case in our patient.³

Pregnancy affects choice of treatment

Treatments for ZSH include acyclovir and local anesthesia.⁸ A single injection of lidocaine (8 cc) may completely eliminate the ZSH pain by affecting the nerve action potential.⁹ Corticosteroids are used to suppress inflammation and decrease erythema, swelling, warmth at the site, and local tenderness.

■ **Our patient.** We decided to treat our patient with only a nerve block because the potential adverse effects of acyclovir in the second trimester of pregnancy are unclear.¹⁰

She received 1 cc of betamethasone acetate (3 mg) and betamethasone sodium phosphate (3 mg) and 8 cc of 2% lidocaine. The patient reported immediate pain relief, which lasted until delivery.

THE TAKEAWAY

ZSH is characterized by neuropathic pain along a dermatome that's associated with herpes zoster and is not accompanied by the characteristic rash. Many pregnant women suffer from thoracic and abdominal wall neuropathic pain. Neuropathic radicular pain in the absence of a rash should raise suspicion of ZSH. Considering this syndrome at an early stage can avert unnecessary testing and reduce the patient's pain. **JFP**

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Suspect zoster sine herpette in a patient who has neuropathic radicular pain but no rash.

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