KANSAS JOURNAL of MEDICINE

An Unusual Presentation of Herpes Zoster

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Received April 24, 2019; Accepted for publication Aug. 14, 2019; Published online Jan. 31, 2020

INTRODUCTION

Herpes zoster, commonly known as shingles, occurs after a primary infection from the varicella zoster virus.[1] This virus remains latent in the ganglionic neurons derived from neural crest cells. During states of decreased cell-mediated immunity in the elderly and immunocompromised, the varicella zoster virus reactivates and travels along nerve fibers peripherally.[2] This results in a painful vesicular rash, usually involving a single dermatome that does not cross the midline.[3]

Should herpes zoster present in unusual locations such as the genitals, it can be challenging to diagnose which can lead to a delay in treatment and complications. The most common complication of herpes zoster is post-herpetic neuralgia.[4] Post-herpetic neuralgia is a debilitating complication because it is difficult to treat and is responsible for a large burden of the disease.[5]

Treatment of herpes zoster involves pain management and healing of the lesion. Antivirals (famciclovir, 500 mg orally 3 times daily or valacyclovir, 1 g 3 times daily for 7 - 10 days) speed up healing of the rash.[6] Pregabalin (150 to 300 mg/day) typically is started and titrated (up to 600 mg/day) to relieve the pain of postherpetic neuralgia.

Our case highlighted how herpes zoster should remain on the differential diagnosis for elderly patients presenting with a new onset lesion of the genitals. Early diagnosis and treatment can speed recovery and prevent complications.

CASE REPORT

A 59-year-old male with no history of medical or medication related immunosuppression presented to the clinic with itching and burning around the head of his penis for the past few days. He was in a monogamous relationship with no exposure to sexually transmitted diseases. He denied urethral discharge, dysuria, hematuria, or tenderness. Vital signs were within normal limits. On physical exam, there was redness at the urethral opening without any skin lesions. The patient was diagnosed with balanitis and started on clotrimazol topical cream. He was directed to come back if his symptoms progressed.

Three days later, the patient returned with worsening discomfort around the site of presentation. He complained of severe sharp pain at his shaft and noticed new red spots on the head of his penis. Physical exam showed a tender glans and shaft of the penis with newly noticed few red vesicles at the left aspect of the glans penis.

HSV 1, HSV 2, and varicella-zoster titers were drawn. HSV 1 antibody titers were positive at 26.2. HSV 2 antibody titers were negative at 0.54. Varicella-zoster virus antibody IgM was positive at 1.24 ISR.

The patient was prescribed valacyclovir and gabapentin and asked to follow-up in one week. Upon follow-up, the patient described an improvement of his rash and pain. On physical exam, the left side of his glans penis appeared to be healing with a slight ulceration. He was to take acetaminophen as needed.

DISCUSSION

Herpes zoster is a common medical condition with a lifetime risk of developing the condition between 25% and 30%.[7] This risk increases to 50% in those individuals 80 years and older. This age-related increased incidence of herpes zoster is thought to be due to decreased cell-mediated immunity. Individuals that are immunocompromised due to HIV or drug therapy are also at an increased risk.[8]

Birch et al.[9] evaluated specimens obtained from the genital lesions of adults presenting with presumed genital herpes infection. They discovered that about 3% of the herpes simplex virus positive specimens also were positive for varicella virus. It is possible that genital herpes zoster is underdiagnosed because of the atypical location of the rash.

When patients present with vesicular lesions of the genitals, most clinicians include herpes simplex virus on the differential diagnosis. Herpes simplex virus is a sexually transmitted disease caused by HSV-1 or HSV-2 that manifests as vesicles on the genitals, perineum, perianal, and buttocks during an outbreak.[10] The classic presentation during primary infection is malaise, fever, or localized adenopathy; however, these symptoms are absent most of the time.[11] Clinicians also include other infectious (e.g., herpes simplex virus, herpes zoster, syphilis, and chancroid) and noninfectious (e.g., Bechet's syndrome, fixed drug eruption, psoriasis, and sexual trauma) causes of genital lesions on their differential diagnosis.[12]

Diagnosing herpes zoster can be difficult when presenting in unusual areas, such as the genitals. It can be difficult to distinguish genital herpes zoster from other genital lesions due to varying clinical presentation or possible co-infection. Our case highlighted how herpes zoster should remain on the differential diagnosis for elderly patients presenting with a new onset lesion of the genitals. Early diagnosis and treatment can speed recovery and prevent complications.

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Keywords: herpes zoster, postherpetic neuralgia, male genital diseases