

# Herpes Zoster Involving Penis and Scrotum: An Unusual Occurrence

Abdul Rehman Arshad, Kamran Yousaf Alvi and Ammad Akram Chaudhary

## ABSTRACT

*Herpes zoster* is an infectious vesicular skin rash in a dermatomal distribution caused by *Varicella zoster virus*. It occurs very uncommonly in sacral dermatomes. We describe a case with rash on penis and scrotum due to involvement of S2 dermatome in a young male. The disease followed an uneventful course and the patient recovered completely without any sequelae or complications. This case is being presented to highlight its unusual location and to discuss differentiation from another viral infection commonly seen at this site.

**Key Words:** *Herpes zoster. Vesicles. Rash. Scrotum. Penis.*

## INTRODUCTION

*Herpes zoster* is an infectious disease that results from reactivation of *Varicella zoster virus* lying dormant in dorsal root ganglia after causing the primary infection known as chicken pox. It affects people of all ages and both genders, though it is more common in the immunocompromised, in whom the disease course is longer and more complicated. The risk of acquiring *Herpes zoster* during a lifetime is around 30%.<sup>1</sup> The incidence increases with age and it is believed that 40 - 50% of cases occur in the older than 60 years age group.<sup>2</sup> Most commonly it affects the trunk, face and extremities. Involvement of the perineum, though possible, is seen very infrequently.

We describe a case of *Herpes zoster* producing rash on penis and scrotum by involving the S2 dermatome.

## CASE REPORT

A 31 years old male soldier presented with a 10 days history of rash on his penis, scrotum and left thigh. Following paraesthesias of 2 days duration on the involved body parts, the rash initially started as small painful vesicles on the scrotum and penis which later became pustular. The patient noticed similar rash on the upper medial aspect of the left thigh 3 days later. Subsequently, the lesions on penis and scrotum started drying. A general practitioner had prescribed oral NSAIDs for analgesia during the course of this illness. The patient denied any constitutional symptoms, rash at other body parts or a past history of similar rash. There



Figure 1: Lesions on left half of penis and scrotum.



Figure 2: Vesicles on left upper thigh.

was no history of any sexual contact in the preceding two months. He did not remember having chicken pox in childhood.

On examination, crusted lesions were present on the left half of his penis and scrotum, limited to one side of the midline (Figure 1). Several small pustules measuring 1 - 2 mm in diameter were also seen grouped together like a bunch of grapes on the upper posteromedial aspect of his left thigh (ipsilateral to the rash in perineum) in the distribution of S2 dermatome (Figure 2). There was no clinical evidence of superadded bacterial infection at either of these two places. The patient was reassured and prescribed oral paracetamol for analgesia along with lotion calamine to counter local itch. He was followed-up after 10 days, by which the rash had completely healed and the patient was asymptomatic. Fortunately, the patient did not develop any constipation or urinary retention during the course of his illness.

## DISCUSSION

*Herpes zoster* is an acutely painful vesicular skin eruption occurring unilaterally in a dermatomal pattern.

Department of Medicine, 1 Mountain Medical Battalion, Bagh, Azad Kashmir.

Correspondence: Dr. Abdul Rehman Arshad, Classified Medical Specialist, 1 Mountain Medical Battalion (MDS), Bagh, Azad Kashmir.

E-mail: maj.abdulrehman@gmail.com

Received: February 11, 2014; Accepted: October 04, 2014.

Clinical manifestations and the disease course depend on the immune status of the patient.<sup>3</sup> In immunocompetent hosts, a single dermatome is usually involved, most commonly on the trunk followed by the extremities. This patient had an unusual location of this common disease. Sacral segments are involved in only upto 5% cases and penile zoster is seen very uncommonly in clinical practice.<sup>4</sup> Despite extensive literature review, we found only a handful cases of penile *Herpes zoster* previously described in literature.

In patients with penile *Herpes zoster*, the main differential diagnosis is zosteriform *Herpes simplex* infection. Though the differentiation based on visual inspection of the lesions alone may at times be difficult, rash on the thigh and non-recurrent nature of the rash go against *Herpes simplex* in this particular patient. The diagnosis of *Herpes zoster* is usually established on clinical grounds alone. However, in difficult situations, viral cultures and polymerase chain reaction may be required to confirm the underlying diagnosis with certainty. The former one is the preferred test to differentiate between *Herpes simplex* virus and *Varicella zoster* virus because of its sensitivity and specificity. Many other dermatological conditions can have a zosteriform distribution and thus mimic *Herpes zoster*. Some of the commoner ones include zosteriform lichen planus, infectious exanthemas, mycoses, urticaria, scleroderma, dermatitis herpetiformis and segmental neurofibromatosis.<sup>5</sup> Zosteriform morphea, zosteriform Darier's disease, zosteriform metastases and lymphangioma circumscriptum have also been described infrequently.

A complication peculiar to involvement of sacral segments is bowel and bladder dysfunction. Cases of urinary retention and constipation associated with *Herpes zoster* of S2 - S4 segments have been described in literature published previously.<sup>6</sup> Other complications may also occur in *Herpes zoster*, most notable ones being post-herpetic neuralgia and secondary bacterial skin infections. Ocular complications like keratitis and uveitis, neurological complications such as aseptic meningitis, encephalitis, transverse myelitis and peripheral motor neuropathy and complications due to visceral involvement in immunocompromised hosts such as pneumonitis and hepatitis may also be seen in *Herpes zoster*. Even after resolution of disease, some of the patients may be left with residual morbidities like postherpetic neuralgia and cranial nerve deficits.

Acyclovir, famciclovir and valacyclovir are effective against *Varicella zoster* virus. Antivirals are generally used in immunocompetent adults aged > 50 years

presenting within 72 hours of rash onset or if complications like *Herpes zoster* ophthalmicus or meningoencephalitis are present. They are also recommended to be used in immunocompromised hosts. Resolution of skin lesions is faster with such treatment but the effect on the risk of developing post-herpetic neuralgia is debatable. Short of antiviral therapy, treatment is generally symptomatic / supportive care. Acetaminophen and NSAIDs may be used for mild acute pain, whereas more severe pain responds to opioids.<sup>7,8</sup> Other options include anticonvulsants like gabapentin or pregabalin as well as topical lignocaine. Glucocorticoids and tricyclic antidepressants are generally not recommended.<sup>9</sup> We did not use antivirals in this patient considering his age and the encrusting of lesions.

A live attenuated *Varicella zoster* vaccine is available for use in immunocompetent individuals. It is recommended to be used as a single dose in persons aged 60 - 79 years to reduce the incidence and complications of *Herpes zoster*.<sup>10</sup>

## REFERENCES

1. Harpaz R, Ortega-Sanchez IR, Seward JF. Prevention of *Herpes zoster*: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep* 2008; **57**:1-30.
2. Weaver BA. *Herpes zoster* overview: natural history and incidence. *J Am Osteopath Assoc* 2009; **109**:S2-S6.
3. Suhail M, Ejaz A, Abbas M, Naz S, Suhail T. *Herpes zoster*: seasonal variations and morphological patterns in Pakistan. *J Pak Assoc Derma* 2011; **21**:22-6.
4. Milan B, Milica M, Sandra S. Penile *Herpes zoster*: an unusual location for a common disease. *Braz J Infect Dis* 2011; **15**: 599-600.
5. Hamada T, Inoue Y, Nakama T, Hashimoto T. A case of zosteriform pigmented purpuric dermatosis. *Arch Dermatol* 2007;**143**:1599-600.
6. Cohen LM, Fowler JF, Owen LG, Callen JP. Urinary retention associated with *Herpes zoster* infection. *Int J Dermatol* 1993; **32**:24-6.
7. Cohen JI. *Herpes zoster*. *N Engl J Med* 2013; **369**:255-63.
8. Wehrhahn MC, Dwyer DE. *Herpes zoster*: epidemiology, clinical features, treatment and prevention. *Aust Prescr* 2012; **35**:143-7.
9. Albrecht MA, Hirsch MS, Thorner AR. Treatment of *Herpes zoster* in the immunocompetent host. In: up-to-date, Basow, DS, editor, Waltham, MA, 2014.
10. Gagliardi AM, Gomes Silva BN, Torloni MR, Soares BG. Vaccines for preventing *Herpes zoster* in older adults. *Cochrane Database Syst Rev* 2012; **10**:CD008858.

