

Herpes zoster-associated acute urinary retention in immunocompetent patient*

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Abstract: Herpes zoster-associated urinary retention is an uncommon event related to virus infection of the S2-S4 dermatome. The possible major reasons are ipsilateral hemicystitis, neuritis-induced or myelitis-associated virus infection. We report a case of a 65-year-old immunocompetent female patient who presented an acute urinary retention after four days under treatment with valacyclovir for gluteal herpes zoster. The patient had to use a vesical catheter, was treated with antibiotics and corticosteroids and fully recovered after eight weeks.

Keywords: Herpes Zoster; Treatment outcome; Urinary retention

INTRODUCTION

Herpes zoster is a common viral infection caused by the varicella-zoster virus and usually expressed by unilateral radicular vesicular eruption and pain. The skin signals and symptoms in the immunocompetent patient are most commonly restricted to the dermatome innervated by a single cranial or spinal sensory ganglion. Urologic dysfunction associated with herpes zoster was first reported by Davidsohn in 1890 and since then around 150 cases have been reported in the literature.^{1,2} Chen et al.,

reviewing 423 cases of herpes zoster in a large institution reported 4.02% of voiding dysfunction related to the varicella-zoster virus infection.³ However, this number increases to 28.6% if only the lumbosacral dermatome involvement is considered, which means that this event is probably under reported.³

Although uncommon, the voiding dysfunction associated with herpes zoster infection should be recognized by general practitioner, emergency physician, urologists and dermatologists for proper diagnosis and management.

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CASE REPORT

A 65-year-old immunocompetent female patient with a skin rash on the right buttock, already clinically diagnosed as herpes zoster and under treatment with valacyclovir for four days, reported acute urinary retention and constipation. She was afebrile and her clinical examination was unremarkable, despite a bladder distention. A catheter drained a residual vesical volume of 1500 ml. Laboratorial investigation including urine examination, blood tests and ultrasonography of abdomen were normal. Norfloxacin was prescribed to prevent urinary tract-infection as well as gabapentine to reduce pain intensity. Valacyclovir was maintained until healing of the skin lesions. Two weeks after apparent cure of the zoster infection 0.7mg/kg/daily of corticosteroids was administered (Figure 1). One week later the catheter was successfully removed. The corticosteroid was then tapered and eight weeks after the onset of the S2-S4 dermatome - herpes zoster infection the patient was fully recovered.

DISCUSSION

Herpes zoster-associated voiding dysfunction can be caused by: 1-ipsilateral hemicystitis, which is the result of direct invasion and replication of the virus in the bladder wall. This usually occurs simultaneously with the skin rash and is expressed by tran-

sient dysuria, haematuria, higher urinary frequency and even urinary retention. The clinical course usually correlates with the evolution of the skin rash and in general the patient regains normal function in two weeks. Treatment of the virus infection, pain sedation and intermittent catheterization if necessary are effective.^{3,5} 2- neuritis-associated (flaccid bladder), caused by the spread of the virus infection into the sacral motoneurons, roots, or peripheral nerves, which induces interruption of the dextrusor reflex and subsequent bladder atonia. Acute urinary retention is the typical clinical manifestation reported to occur from 4 to 19 days after the appearance of the skin rash.^{6,8} The clinical course lasts from four to eight weeks. The dextrusor areflexia can be confirmed by cystometrography and the duration of the dysfunction seems to be independent of the skin rash severity. Intermittent catheterization or indwelling catheter placement is required till full recovery and antibiotics could be used for urinary infection chemoprophylaxis.^{3,5} Rarely can erectile dysfunction be associated to urinary retention due to sacral herpes zoster.⁹ 3- myelitis-associated urinary dysfunction expressed as a spastic bladder is less common. The prognosis is reported as good with most of the patients achieving complete recovery after few weeks.³

This case is representative of acute urinary retention due to neuritis induced by herpes zoster of S2-S4 dermatome resulting in dextrusor areflexia and flaccid bladder. In opposition of using imiquimod, which is useful to treat hypertrophic perineal herpes of immunosuppressed patients, oral corticosteroids could be helpful in shortening the natural course of herpes zoster-associated urinary retention due to induced neuritis, as suggested in this reported case. However, corticosteroids have not been proposed so far as a standard treatment for such dysfunction in the literature.^{3,10} □



FIGURE 1: Herpes Zoster of S2-S4 dermatome in its healing stage

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