Sacral Herpes Zoster Infection Associated Urinary Retention

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HISTORY AND PHYSICAL EXAMINATION

A 52-year-old man presented with multiple vesicles and lower abdominal pain. He also had a painful left buttock and thigh for 10 days. Acute urinary retention occurred at the emergency department (ED). There was no previous history of urological problems. Physical examination results did not show any neurological deficits but multiple erythematous vesicles with decortication (Fig. 1) were noticed on the left buttock and thigh; results of laboratory tests and urinalysis were normal. Ultrasonography showed a distended urinary bladder. Strong pain killers including non-steroid anti-inflammatory drugs were given and the pain resolved, however, urinary retention persisted. Initial management included urethral catheterization as well as a full course of intravenous acyclovir followed by oral acyclovir therapy. Thereafter, he succeeded in voiding 4 weeks after the conservative medical treatment.

URODYNAMIC FINDINGS

A videourodynamic study showed increased bladder sensation during the filling phase and poor compliance of the bladder. The intravesical pressure increased markedly with increased bladder volume. Cystourethrography revealed the bladder neck was closed (Fig. 2).

DISCUSSION

We demonstrated a unique case of acute urinary retention secondary to herpes zoster infection of the sacral nerve roots (S2-3) with painful vesicular rash. It is speculated that a neuropathic bladder develops because of the involvement of the detrusor reflex. Urinary retention is found in ~5% of anogenital herpetic infections [1]. Varicella zoster involving in the sacral area is uncommon. They usually develop in patients



Fig. 1. Multiple vescilular lesions located at the buttock and thigh.

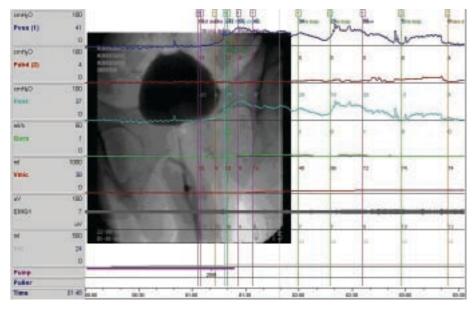


Fig. 2. Videourodynamic study revealed increased bladder sensation and closed bladder neck.

Clinical pearls — Genitourinary tract image

with immunocompromised status such as old age, steroid usage, and patients with HIV infection. Herpes zoster infection in the sacral area has also resulted in bowel or anal sphincter dysfunction and patients have experienced constipation [2].

The urodynamic findings of our case are unusual. According to a review by Yamanishi et al [3], patients with sacral herpes and urinary retention have detrusor areflexia. To the contrary, our case presented with a poor compliant urinary bladder and closed bladder neck. In three of 17 cases presented by Ray and Wise [4], inflammatory changes of the bladder mucosa were identified. It is speculated that herpes zoster might result in bilateral pelvic nerve involvement, which manifested as severe bladder (suprapubic) pain and increased bladder sensation on urodynamic studies.

In general, the prognosis for patients with acute urinary retention secondary to herpes zoster of sacral herpes infection is usually benign. The detrusor contractility might recover after appropriate management as catheterization within 4 to 8 weeks, either urethral or suprapubic if

urinary retention develops. A complete course of parenteral and oral acyclovir is indicated and follow up urodynamic studies will confirm the recovery of detrusor activity. Physicians should more alert about this uncommon cause of acute urinary retention, which may be seen in our clinical practice.

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花蓮慈濟醫學中心泌尿科團隊在 1988 年起,由當時任職台大醫院泌尿科郭漢崇醫師擔任主任,近二十年來陸續邀集國內泌尿科具專長之醫師,共同打造一個兼診斷、治療與研究能力的泌尿科團隊。《泌尿學》便是由花蓮慈濟醫學中心泌尿科團隊,全體通力合作所完成的醫療鉅著。相信不只對於泌尿科醫師、醫學生,甚至對於護理人員,都深具參考價值。

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