

A case of perineal pain related to interstitial cystitis which was supposed to be relieved with gabapentin

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To the editor: Successful treatments of various chronic pain syndromes with gabapentin have been reported [1]. However, to our knowledge, the usefulness of gabapentin in bladder pain syndrome related to interstitial cystitis (IC) has seldom been reported. In this report, we present a case of IC-related perineal pain that was relieved by gabapentin.

A 60-year-old woman presented with pain in the perineal and thigh area with frequent urination. She had visited three gynecological and three orthopedic clinics over a period of 14 months and had received various medications without the diagnosis of IC, but her symptoms had not been alleviated. At another hospital she underwent cystoscopy with hydrodistention, and was diagnosed with IC according to morphological findings from a bladder biopsy. The pain disappeared during spinal anesthesia and the pain with frequent urination was reduced for a few days after the operation. However, after

alleviation of her symptoms for several days, her symptoms recurred. Two months after the cystoscopy, she visited our pain clinic. At that time, her visual analogue scale (VAS) score for pain was 100. We diagnosed her with bladder pain syndrome related to IC, and started oral administration of a combination of paroxetine, etodolac, acetaminophen, and clonazepam. However, these medications had no effect on her symptoms, and she was admitted to our department for nerve block treatment.

For this treatment, an epidural catheter was advanced at the L4-5 interspace, and the tip was placed at L3. The pain related to IC almost disappeared after the epidural administration of 5 ml of 1% lidocaine (Fig. 1). She was scheduled to receive 5 ml of 1% lidocaine administered through the epidural catheter periodically, four times a day. However, the epidural administration of 5 ml of 1% lidocaine induced hypotension. Therefore, the dose of 1% lidocaine was decreased to 4 ml. As a result of the decrease in epidural lidocaine administration, the pain related to IC increased. Therefore, oral gabapentin was started, at a dose of 200 mg·day⁻¹ and gradually increased. After the epidural catheter was removed, the superior hypogastric plexus was blocked with 0.75% ropivacaine as a trial. The pain was diminished for a few days after the superior hypogastric plexus blockade. However, she declined permanent block with alcohol because of

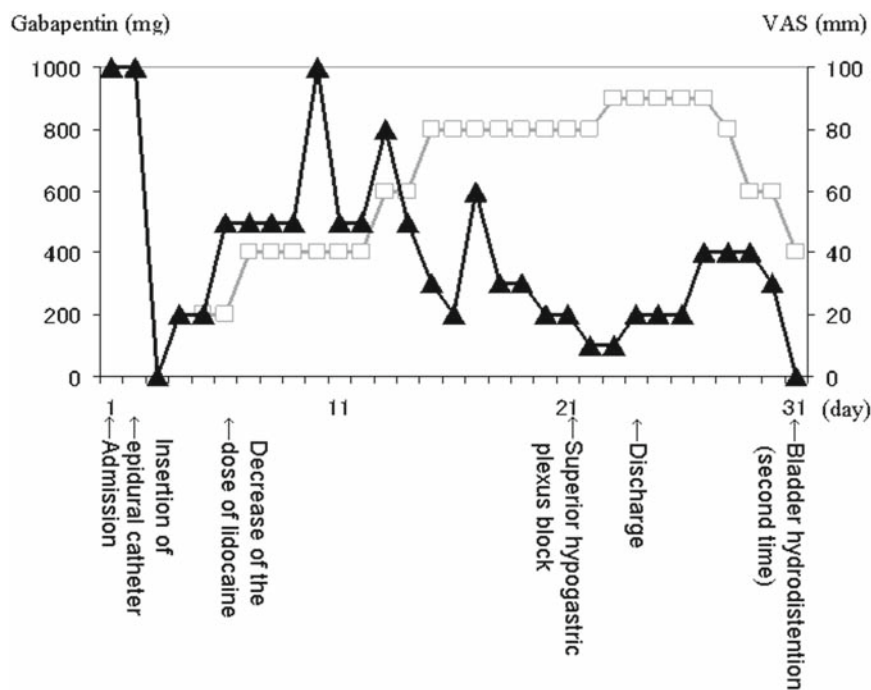


Fig. 1. Time course of changes in the dose of gabapentin and visual analogue scale (VAS) scores. Closed triangles, VAS; open squares, gabapentin

possible complications such as genitofemoral neuritis. Because her pain was not alleviated with our nerve block treatments, she continued to take the oral gabapentin; the dose was increased to 900 mg·day⁻¹ and the pain decreased (VAS score, 20). Because oral gabapentin did not affect the frequent urination, we consulted a urologist at our hospital, and bladder hydrodistention was scheduled. After this second bladder hydrodistention operation, her pain disappeared and the frequent urination was alleviated.

In addition to surgery, alternative treatments for pain related to IC are nerve block and oral analgesic medications. The efficacies of lumbar epidural block, lumbar sympathetic nerve block, and/or superior hypogastric plexus block have been reported previously [2,3]. Other oral medications have shown varying degrees of efficacy [4]. Gabapentin, a structural analogue of gamma-aminobutyric acid, has been used as an analgesic drug; however, its antinociceptive mechanism is not well understood. Gabapentin has been observed to be effective in neurogenic detrusor overactivity [5]. Gabapentin probably controls the activity and sensitivity of the bladder detrusor by modulating the afferent input from the bladder and the excitability of the sacral reflex center [5]. The central action of gabapentin within the spinal cord or brain includes the desensitization of dorsal horn neurons, thereby reducing the hypersensitivity associated with nerve injury, inflammation, and pain after surgery [6–9]. It is also suggested that gabapentin inhibits peripheral sensitization mediated by afferent C-fibers, and the inhibitory effect of gabapentin may contribute to its therapeutic effects on bladder discomfort or bladder pain related to IC [10]. The mean dose of gabapentin to treat refractory genitourinary tract pain, including IC, was reported to be 1200 mg·day⁻¹ [11], and it was also reported that relief of pain in two patients with IC was provided by 1600 mg·day⁻¹ of gabapentin [12].

In conclusion, we suggest that gabapentin may be useful to relieve the pain of IC.

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