

Analgesic effect of bilateral ultrasound-guided pudendal nerve blocks in management of interstitial cystitis

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To the Editor:

Interstitial cystitis is a chronic inflammatory bladder syndrome with limited treatment options. Pudendal nerve stimulation is in vogue as treatment, yet its use has inherent drawbacks including availability and cost.

Although pudendal nerve blocks are common practice [1], there has been no report of the specific use of ultrasound to treat interstitial cystitis. We describe bilateral ultrasound-guided pudendal nerve blocks in two patients with interstitial cystitis with excellent analgesic outcome.

A 66-year-old man with a 7-year history of severe bladder pain and frequency/nocturia was diagnosed with interstitial cystitis. He had undergone transurethral resection of prostate and multiple therapeutic cystoscopies to alleviate his symptoms with no success. Despite long-term amitriptyline and analgesia, his pain continued to interfere with daily activities, and he was referred for further pain management.

After skin preparation, a 2–5 MHz curved array ultrasound probe within a transparent sheath was used to visualize landmarks with the patient prone. The sacroiliac joint was identified, then the probe was moved inferolaterally where the sacrospinous ligament attaches to the ischial spine, as the pudendal nerve exits the greater sciatic foramen. Real-time imaging with color Doppler confirmation was used to direct a 22 G spinal needle in proximity to the pudendal nerve. Bilateral injections were performed sequentially by an experienced operator; using 4 ml 0.25% levobupivacaine and 40 mg methylprednisolone.

His pain improved immediately after the intervention. At the 3-month follow-up, there was excellent sustained pain relief, mild improvement in his urinary symptoms, and no sensory loss in the pudendal nerve distribution.

A 70-year-old woman diagnosed with refractory interstitial cystitis presented to our pain service. Her symptoms included pelvic and perineal pain and nocturia for 6 years. Her management included gabapentin, multiple cystoscopies, intravesical botulinum toxin injections, and intravesical instillation of dimethylsulfoxide, all with no relief.

Bilateral pudendal nerve injections were performed in the same manner by the same operator. Injection dose was similar.

There was relief of pain and urinary symptoms at her 3-month follow-up. Sustained pain and symptom relief was reported 9 months following the procedure, with no reported sensory loss.

This is the first report of clinical outcomes following the use of ultrasound-guided pudendal nerve block for interstitial cystitis. It confirms that the pudendal nerve plays a role in interstitial cystitis [2], and that it can be thought of as a peripheral neuropathy based on neurogenic inflammation and sensitization [3]. In fact, interstitial cystitis as a manifestation of pudendal neuropathy is a current popular

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theory [4]. Steroids were administered as they appear to stabilize neural membranes and provide an antiinflammatory effect [5].

We accept that lack of baseline voiding diaries and long-term impact on quality of life limits quantitative benefit analysis. However, we believe that the surprising long-term clinical benefit derived from this simple intervention warrants reporting.

Undoubtedly, ultrasound-guided pudendal nerve blocks are simple to perform and improve the accuracy of needle placement without need for radiation exposure. It appears to be a cost-effective and safe technique deserving further prospective controlled studies.

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