Hypogastric Plexus Block Followed by Neurolysis for Refractory Bladder Pain Syndrome: A Case Report

Daniel Perling, DO, Jijun Xu, MD, PhD
Center for Spine and Pain Medicine, Neurological Institute, Cleveland Clinic, Cleveland, Ohio

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Introduction

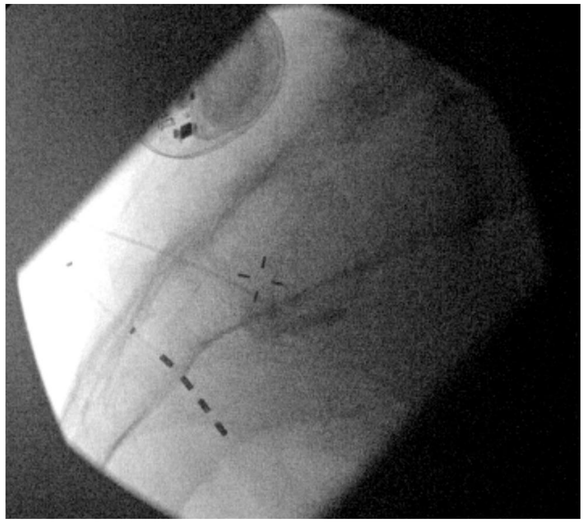
Bladder pain syndrome is characterized by pelvic pain with lower urinary tract symptoms lasting more than six weeks without infection or another identifiable cause. The hypogastric plexus provides autonomic and sensory innervation to pelvic viscera. Traditionally, the superior hypogastric plexus is targeted for blockade. The inferior plexus innervates the lower pelvic organs but is more challenging to access. We present a case of inferior hypogastric plexus block followed by phenol neurolysis for bladder pain syndrome.

Case

A 76-year-old woman with a history of bladder pain syndrome, chronic kidney disease, lung cancer, and hypertension presented with chronic pelvic pressure and urinary frequency. She reported 35 years of persistent pelvic pressure with frequent urination up to every 15 minutes and 4-5 times nightly. Despite multidisciplinary care involving gynecology and urology, she failed pharmacologic therapy, pelvic floor physical therapy, bladder stimulation, Botox instillations, hydrodistension, cognitive behavioral therapy, and bilateral pudendal nerve blocks. Two superior hypogastric plexus blocks with bupivacaine and dexamethasone provided 80% relief for six weeks each. Superior hypogastric plexus neurolysis with 10 mL of 6% phenol provided 80% relief for three weeks. An inferior hypogastric plexus block, performed via the posterior left S3 foramen to the anterolateral sacral border using bupivacaine and dexamethasone, provided 80% relief for three weeks. Subsequent inferior hypogastric plexus neurolysis using 5 mL of 0.5% bupivacaine and 5 mL of 6% phenol resulted in 90% relief and a significant reduction in urinary times, roughly 4-5 times during the day and 1-2 times in the night, lasting three months. Repeat inferior hypogastric plexus neurolysis with phenol has provided similarly prolonged relief. This case demonstrates a potential role for inferior hypogastric plexus phenol neurolysis in refractory bladder pain syndrome.

Discussion

This case suggests a potential role for inferior hypogastric plexus phenol neurolysis in the treatment of refractory bladder pain syndrome. Given the inferior hypogastric plexus' sensory and autonomic innervation of the lower pelvic organs, targeting this plexus may represent a rational therapeutic approach for patients who have exhausted conventional treatments. Further prospective studies are warranted to evaluate the efficacy, durability, and safety of this intervention.



References

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