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Treatment of chronic urologic pelvic pain with sacral root neuromodulation: case report

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Abstract
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Abstract

Introduction

Chronic pelvic pain syndrome (CPPS) is characterized by localized pain in the pelvic or perineal area that lasts six months or longer. Within CPPS is urologic pelvic pain syndrome (UCPSS), affecting both men and women and encompassing chronic prostatitis in men and interstitial cystitis in women. The cause of these syndromes remains uncertain, and diagnosis often involves a multidisciplinary approach [1]. Treatment options are limited, with drug therapy offering unsatisfactory results and notable side effects. Neuromodulation, specifically pulsed radiofrequency, shows promise in managing chronic pelvic pain. [3] This case report describes the successful use of pulsed radiofrequency to relieve interstitial cystitis pain, reduce reliance on medication, and improving quality of life.

Materials and methods

In May 2022, a female 66-year-old Caucasian patient with chronic pelvic pain was admitted to our clinic. An MRI showed disc herniation at L4-L5 and L5-S1, and signs of interstitial cystitis. The patient was receiving drug therapy prescribed by her urologist for 2 years, but had unresolved pain and urinary symptoms. Pain was categorized as neuropathic. An anesthetic block of the pudendal nerve provided over 80% pain reduction, confirming the potential effectiveness of neuromodulation. After being informed about the procedure's benefits and risks, the patient consented to undergo neuromodulation targeting bilateral S2-S3 sacral roots. Preoperative tests were normal, and the patient underwent the procedure successfully under careful monitoring. A peridural catheter was inserted, followed by sensory and motor tests, and pulsed radiofrequency was administered. Post-procedure, the patient was prescribed Dexamethasone, Paracetamol, and Amitriptyline.

Results

The patient was contacted, and pain was assessed as follows. At 1 month: static Numeric Rating Scale was 3, dynamic 4, and Genitourinary Pain Index (GPI) 6/45. At 6 months: static NRS 1, dynamic 2. The Brief Pain Inventory showed a marked improvement in quality of life and the GPI was 6/45.

Conclusions

To date, treatment of chronic pelvic pain still represents an uncertain area. We are still far from identifying a cause of such pain. Diagnosis and treatment have not yet been included within guidelines. In this context, the use of radiofrequency would fit perfectly, [2] and the neuropathic etiology of the pain would justify its use; moreover, the minimal invasiveness of the treatment and its repeatability allow ample room for the method’s improvement.

All authors declare that they have no conflicts of interest.

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