# T7-T9 Spinal Cord Stimulation for Chronic Pelvic Pain Secondary to Pudendal Neuralgia After 35 Years of Symptoms: A Case Report

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## Introduction

- Chronic pelvic pain (CPP) is a multifactorial syndrome characterized by pain localized to the bladder, genitalia, groin, or anorectum.
- CPP is estimated to affect approximately 15% of women in the United States and poses significant therapeutic challenges given the frequent involvement of multiple pain generators.[1]
- Pudendal neuralgia (PN) is a common cause of neuropathic pain among patients with CPP.
- Spinal cord stimulation (SCS) is an established modality for treating chronic neuropathic back and leg pain and is increasingly being investigated as a treatment option for refractory PN-mediated pain.[2]

## Case Presentation

- 68-year-old woman with a 35-year history of postpartum pudendal neuralgia
  - Chronic, intermittent burning and tingling pain involving the right inner thigh, right leg, and groin. Occasional debilitating muscle spasms and low back pain.
- Physical exam:
  - No neurological deficits
  - Negative straight leg raise
  - Positive FABER
  - Right SI joint tenderness
  - Bilateral gluteal and greater trochanter tenderness
- Conservative management with minimal relief:
  - Pregabalin, celecoxib, duloxetine, cyclobenzaprine, and physical therapy.
- Imaging: No significant lumbar spinal stenosis
- Prior interventional treatments:
  - L5–S1 interlaminar epidural steroid injections
  - Right pudendal nerve blocks (Figure 1)
  - Radiofrequency ablation of right pudendal nerve
- Each intervention provided only a few months of relief before recurrence of pain.

## Management

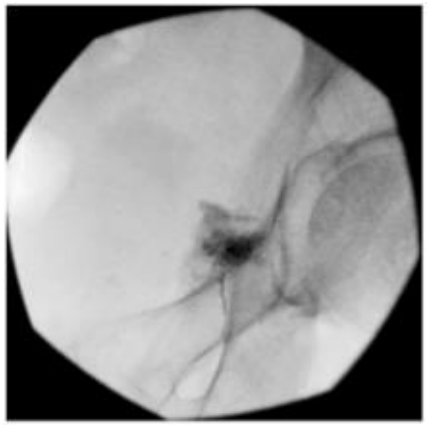


Figure 1: Right Pudendal Nerve Block Injection, located at Ischial Spine near Alcock's canal

- A trial of SCS at T10 (left lead) and T9 (right lead) yielded significant pain reduction (>50%). The patient agreed to permanent device implant.
- Permanent implantation with leads placed at upper portion T9 (left lead) and middle portion of T7 (right lead) (Figure 2).
- At 3-month follow-up, the patient reported a substantial reduction in pelvic pain from an average pain score of 5/10 to 2/10 post-implantation, periods of complete relief, and significant improvement in ambulation and daily functioning.
- Although intermittent muscle spasms persisted, their intensity improved with device adjustments.



Figure 2: Permanent Implantation of SCS Leads, with the left lead positioned at T9 and the right lead at T7, selected to achieve broader stimulation coverage of the pelvic and lumbosacral dermatomes.

## Discussion

- This case demonstrates that T7,T9 SCS can be an effective intervention for chronic pelvic pain secondary to pudendal neuralgia, even after decades of disease progression. Most published cases report targeting T11–L1 for modulation of the pudendal region, however, this patient exhibited a more complex pain presentation that included sacroiliac joint pain, low back pain, bilateral gluteal and greater trochanter tenderness which prompted consideration of a more rostral lead placement.[3,4]
- Our findings suggest that SCS at T7,T9 may provide broader coverage of the pelvic region while effectively modulating symptoms associated with the S2–S4 distribution in select patients. This approach may represent a viable alternative for patients with similar presentations who have exhausted conventional interventional treatment options.

## Conclusion

This case demonstrates that T7, T9 SCS can be an effective intervention for chronic pelvic pain secondary to pudendal neuralgia. The more rostral lead placement may offer broader pelvic and lumbosacral coverage than the conventional T11-L1 target while still adequately modulating S2-S4 pudendal symptoms. Larger studies are needed to define more optimal long-term stimulation parameters in this population.

## References

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