

Persistent Penile Pain Following UroLift: Suspected Pudendal Neuralgia Diagnosed Using the Nantes Criteria and Improved with Fluoroscopically Guided Pudendal Nerve Blocks

Andrew Tsai BS, Aruba Asad DO, Ricky Jung DO, Tova Plaut DO

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Nassau University Medical Center
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Introduction

- Prostatic urethral lift (UroLift) is a minimally invasive treatment for benign prostatic hyperplasia (BPH) with an established favorable safety profile.
- Persistent neuropathic penile or pelvic pain following UroLift is uncommon and may be underrecognized.
- Pudendal neuralgia is an important differential diagnosis for chronic genital pain, particularly when symptoms worsen with prolonged sitting.
- The Nantes criteria provide a clinical framework for identifying suspected pudendal neuralgia: 1) Pain in the territory of the pudendal nerve, from the anus to the clitoris/penis. 2) Pain predominantly experienced while sitting. 3) Pain does not wake the patient at night. 4) No objective sensory impairment on clinical examination. 5) Positive anesthetic pudendal nerve block.
- We present a case of persistent penile pain following UroLift that met all five essential Nantes criteria and demonstrated reproducible improvement following fluoroscopically guided bilateral pudendal nerve blocks.

Case Presentation

Patient: 56-year-old man with history of BPH treated with UroLift.

Clinical course

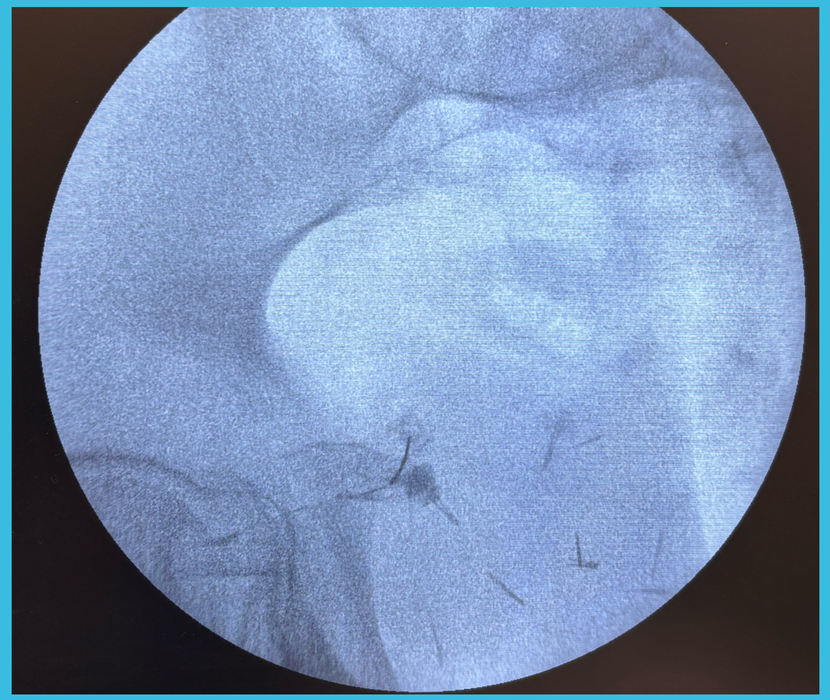
- Developed persistent sharp penile shaft pain radiating to the right groin approximately 18 months after UroLift.
- Associated symptoms included pelvic pain, numbness, tingling, and altered sensation.
- Pain was present >75% of the day and worsened with prolonged sitting, significantly limiting daily activities.
- Prior treatments included gabapentin, duloxetine, pregabalin, NSAIDs, pelvic rehabilitation, and prostate artery embolization, without durable relief.
- Alternative urologic etiologies were evaluated and excluded.
- Clinical evaluation demonstrated all five Nantes criteria for suspected pudendal neuralgia.

Intervention & outcome

- Underwent fluoroscopically guided bilateral pudendal nerve blocks with contrast-confirmed needle placement followed by dexamethasone and ropivacaine.
- Preprocedural VAS: 8/10
- Initial block: 25–49% pain reduction lasting 1–2 weeks
- Repeat block produced similar reproducible pain reduction without complications.
- At follow-up, pain improved to 3/10 while receiving pregabalin; pelvic rehabilitation and home exercises were continued.

All protected health information was de-identified. As this case report contains no patient-identifiable information, it was exempt from institutional review board review under NuHealth policy.

Pudendal Nerve Block with Contrast: Lateral View



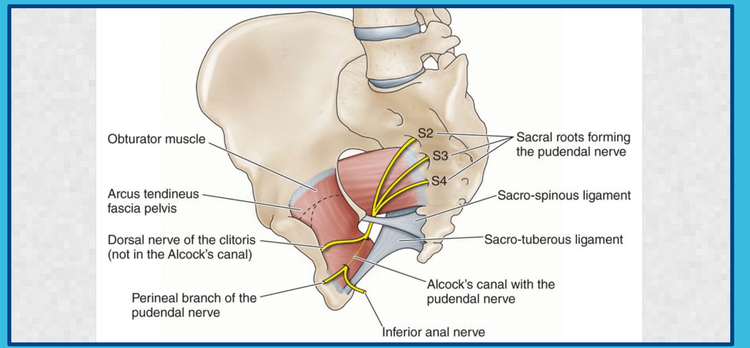
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Discussion

- Persistent penile pain after UroLift may have a neuropathic component and should prompt consideration of pudendal neuralgia when symptoms include sitting intolerance and neuropathic sensory features.
- The patient fulfilled all five essential Nantes criteria, supporting a clinical diagnosis of suspected pudendal neuralgia after exclusion of alternative urologic causes.
- Reproducible improvement following bilateral pudendal nerve blockade provided additional diagnostic support and short-term symptomatic benefit.
- This case highlights the potential role of multidisciplinary evaluation and interventional pain management in patients with persistent genital or pelvic pain following urologic procedures.
- Further study is needed to determine the frequency, mechanisms, and causal relationship between UroLift and persistent neuropathic pelvic pain.

Pudendal Nerve Block Anatomy



- Arises from the ventral rami of S2–S4. Exits the pelvis through the greater sciatic foramen, passes around the ischial spine/sacrospinous ligament, and re-enters through the lesser sciatic foramen.
- Travels within Alcock's (pudendal) canal along the obturator internus fascia.
- Provides sensory innervation to the external genitalia and perineum and motor/autonomic contributions to the perineal region, providing a neural pathway for penile/perineal pain.
- The anatomic course near the ischial spine provides a target for fluoroscopically guided pudendal nerve blockade.