

Interdisciplinary Management Of Complex Pelvic Pain and Pudendal Neuralgia

Stephanie A. Prendergast, MPT
Sheldon Jordan, MD
Mark Conway, MD

Disclosures

- Scientific Advisory Board for Materna Medical

Objectives

1. Evolution of PN
2. Diagnosing PN
3. Differential diagnosis of PN vs PNE
4. Biopsychosocial Physical Therapy Protocol
5. Case Study
6. Interdisciplinary Treatment Algorithm

Pudendal Neuralgia: Then

1988: Alcock's Canal Syndrome and Perineal Neuralgia

- Compression of the PN, canal syndrome
- Tinel's sign of increased pain with sitting
- Cyclist's Syndrome

Rev Neurol (Paris) 1988; 144 (8-9):523-6. Alcock's Canal syndrome and perineal neuralgia, Amarencio G et al

Patients 18-70, perineal pain, (+) temporary response to block

Surgical Group

- N= 16
- Surgical decompression and transposition
- Medical management: anticonvulsants and antidepressants
- PNBs
- Relaxation Therapy

Nonsurgical Group

- N= 16
- Medical management: anticonvulsants and antidepressants
- PNBs
- Relaxation Therapy

Robert et al. European Urology 47 (2005) 403 – 408.

Results

Table 3. Primary endpoint, 3 months .

	Intent to treat, n (%) (n = 32)		Per protocol, n (%) (n = 29)	
	Success	Failure	Success	Failure
Surgery	8 (50.0)	8 (50.0)	8 (57.1)	6 (42.9)
Control	1 (6.2)	15 (93.8)	1 (6.7)	14 (93.3)
Fisher exact test	0.0155		0.0052	

Results

Table 4. Results at 12 months.

Success, n (%)	Failure, n (%)
10 (71,4%)	4 (28,6%)
2 (13,3%)	13 (86,7%)
0.0025	

Conclusions

“This prospective, randomized study demonstrates PN surgical decompression/ transposition is a safe and effective treatment for patients with intractable PN”.

“This pain may be due to a tunnel syndrome previously misdiagnosed or abusively qualified as ‘idiopathic’”.

As the pelvis turns....

Neurochirurg Clin: 2007 Aug-Sep;37(4):223-8. Epub 2007 Aug 2.

What is the place of electromyographic studies in the diagnosis and management of pudendal neuralgia related to entrapment syndrome?

Lefaucheur JP, Lalot JJ, Amarocco G, Harbaud AG, Pirié-Predal D, Benaim J, Aranda B, Ame-Bes MC, Bonniaud V, Bouthin PM, Charvier K, Daemenot F, Dumas P, Galoup JP, Sheikh Samed S, Kerdran J, Lacroix P, Lagache D, Lapeyre E, Lefort M, Leroi AM, Oussamer RJ, Parratte B, Prévinaire JG, Raibaud P, Sale JL, Scheiber-Noquera MC, Soier JM, Tesli MF, Thomas C.

“Entrapment of the pudendal nerve may be at the origin of chronic perineal pain. This syndrome must be diagnosed because this can result in the indication of surgical decompression of the entrapped nerve for pain relief.”

Lefaucheur et al. What is the place of ENMG studies in the Dx and Management of PN related to entrapment syndrome? Neurophysiologie Clinique/Clinical Neurophysiology (2007) 37, 223-228

ENMG limitations

- Employed techniques correlate to demyelination or axonal loss vs pathophysiological mechanisms of pain
- Tests only consider direct or reflex motor function, sensory nerve conduction studies need to be more sensitive to detect nerve compression
- Cannot differentiate entrapment from other nerve issues
- ENMG limited sensitivity and specificity about pain mechanisms

Lefaucheur et al. What is the place of ENMG studies in the Dx and Management of PN related to entrapment syndrome? Neurophysiologie Clinique/Clinical Neurophysiology (2007) 37, 223-228

Diagnostic Criteria for Pudendal Neuralgia by Pudendal Nerve Entrapment (Nantes Criteria)

- Pain in the territory of the PN
- Pain predominantly while sitting
- Pain does not wake patient at night
- Pain with no sensory impairment
- Pain relieved by diagnostic PNB

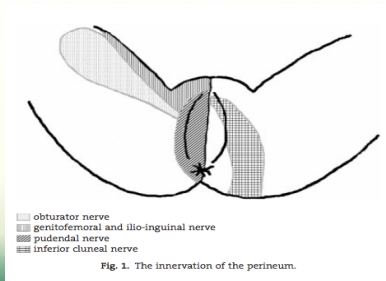
Neurology and Urodynamics 27:306 - 310 (2006)

Diagnostic Criteria for Pudendal Neuralgia by Pudendal Nerve Entrapment (Nantes Criteria)

- absence of pathognomic imaging, laboratory and electrophysiologic criteria, remains *primarily clinical*
- "In fact, only the operative finding of nerve entrapment and post-operative pain relief can formally confirm the diagnosis of PN due to PNE, except for a possible placebo effect of surgery".

Neurology and Urodynamics 27:306 - 310 (2006)

Pudendal Neuralgia Diagnosis Now



Pudendal Neuralgia Now

- Neuromuscular and/or Neuropathic Pain Syndrome
- Mechanical
 - Compression
 - Tension
 - Entrapment

Pudendal Neuralgia Now: Neuromuscular Pain Syndrome

- Neuromuscular Peripheral/nociceptive impairments
- Mechanical causes of neural issues
 - compression
 - tension
 - entrapment
- Pain Component: CNS alterations
 - sensory processing disorders of the spinal cord and brain
 - pain is an output expression of the brain
 - Nociception is neither necessary nor sufficient for the production of pain

Pudendal Neuralgia Now

- Biopsychosocial Treatment Model
- Pelvic Floor Physical therapy is considered first line therapy most pain conditions, including Pudendal Neuralgia
- Nociception and pain are not the same and must be independently evaluated and addressed

Koder W, Hale D. Pudendal Neuralgia. Obstet Gynecol Clin N Amer 2014 Sept 41 (3) 443-52.

Physical Therapy Evaluation: History

- etiology of chief complaints
- evidence of central sensitization
- evidence of fear-avoidance/
catastrophization
- pain, anxiety, depression
- medical professionals actively involved in
their care
- failed treatments/interventions/
medications

Physical Therapy Evaluation: Physical Examination

- Pelvic floor and girdle muscles
 - length, strength, motor control,
MTrPs
- Connective tissue
 - mobility, integrity
- Joint integrity
 - static and dynamic
- Neurodynamic function
 - elongate, glide, slide, irritability
- Movement patterns

Physical Therapy Management: Assessment

- Etiology, symptoms, impairments
- Identification of nociceptive local tissue
dysfunction, mobility dysfunction,
strength/stability and functional
limitations
- Identify central nervous system
impairments

Physical Therapy Treatment Plan

- Patient education: pain education
- Neutralize fear
- Manual therapy
- Home exercise program and temporary
lifestyle modification
- Coordination of care and provider
communication

Treatment Plan

- Physical therapy: 1 -2 xs/week
 - patient education
 - manual therapy
 - home exercise program

Treatment Plan

- Coordination of care
- Interventional Pain Management: hold until 4 -6 PT visits

What to Expect from your Physical Therapist

1. Explanation of cause of symptoms
2. Frequency of your treatment plan
3. Duration of your treatment plan
4. Communication with your other providers



Treatment Plan Troubleshooting

- Cannot tolerate physical therapy
- Not responding to physical therapy
- Noncompliant with physical therapy plan
- No access to physical therapy

Troubleshooting: Cannot tolerate physical therapy

- manual therapy techniques incorrect
- manual therapy techniques correct but pain is unmanaged
- exercises to benefit one impairment aggravate another, not appropriate
- technique or exercise not indicated because of other comorbidities (ex: vulvar tissue integrity)

Troubleshooting: cannot tolerate physical therapy

- Unmanaged pain: allodynia/hyperalgesia
- Central vs Peripheral nervous system dominance
- Manual therapy, exercise, lifestyle
- True nerve entrapment: surgical insult, anatomic abnormalities

Not responding to physical therapy

- Treatment technique efficacy
- Relevance of impairment targeted
- Touch everything, change nothing
- CNS dominant pain
- Entrapment
- Unidentified comorbidities

