Post-Operative Rehabilitation Protocol Following Pudendal Nerve Decompression

Stephanie A. Prendergast, MPT and Elizabeth H. Rummer, MSPT
Pelvic Health and Rehabilitation Center
San Francisco, California
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- Evaluated over 500 patients with PN

- Evaluated and treated 51 post-operative patients:
  - 36 patients: Transgluteal Decompression and Transposition
  - 15 patients: Trans-Ishial-Rectal Decompression
Persistent post-operative pain and dysfunction

- 51/51 patients: unable to sit without pain
- 51/51 patients: urinary and/or bowel and/or sexual dysfunction
Physical Therapy Evaluation

- Connective Tissue Restrictions
- Myofascial Trigger Points
- Adverse Neural Tension
- Pelvic Floor Dysfunction
- Structure and Biomechanics
Connective Tissue Restrictions

Panniculosis: increased texture thickness with acute tenderness upon pinch-rolling in the subcutaneous tissue

Subcutaneous Panniculosis

- PNS: local pain
- CNS: referred pain
Mechanisms for formation of Subcutaneous Panniculosis (SQP)

- Result of visceral referred pain
- In dermatomes associated with the nerve roots of an inflamed peripheral nerve
- Superficial to muscles with Myofascial Trigger Points (MTrPs)
- Superficial to areas of joint dysfunction
Sites of SQP in patients with persistent post-operative pain
Sites of SQP in patients with persistent post-operative pain
Myofascial Trigger Points (MTrPs)
Adverse Neural Tension
Pelvic Floor Dysfunction: Source or Symptom of Pudendal Neuralgia?

Anterior Levator Ani, inferior portion

Coccygeus/Ischio-coccygeus

Obturator Internus

Sphincter Ani

David Wise, PhD: Headache in the Pelvis
Structure and Biomechanics

- Sacro-iliac joint dysfunction
- Lumbar spine, hip, lower extremities
- Foot
- Neuromuscular control
- Strength, stability, flexibility
Physical Therapy Treatment Plan

- Mobilize restricted connective tissues
  - Lower extremities, abdomen, gluteal region, low back
  - Distribution of the Pudendal Nerve: medial to the ischial tuberosities and inferior pubic ramus, labia, scrotum, suprapubic region, posterior thigh, lateral to rectum

- Connective Tissue Manipulation, Dry needling
Physical Therapy Treatment Plan

- Eradicate myofascial trigger points
  - Obturator internus, piriformis, adductors, multifidi, gluteal group, quadratus lumborum, rectus abdominus, obliques, bulbospongiosis and ischiocavernosis, levator ani
- Manual therapy, dry needling, trigger point injections
Physical Therapy Treatment Plan

- Reduce adverse neural tension
  - Dorsal pudendal nerve branches, perineal branch, inferior rectal branch, Alcock’s Canal, ischial spine

- Connective tissue manipulation, nerve glides, PNB if patient cannot tolerate physical therapy
Physical Therapy Treatment Plan

- Eliminate Pelvic Floor Dysfunction
  - Lengthen short pelvic floor, eliminate MTrPs, normalize motor control (concentric contraction, eccentric lengthening, volitional ‘drop’), strengthen if weak*

- Vaginal/rectal MFR, PNF, TPIs, PNB if patient cannot tolerate RX, pelvic floor ‘aerobics’
Physical Therapy Treatment Plan

- Normalize structure and mechanics
  - SIJD (hypermobility), pelvic obliquity, LLD, foot alterations, core strength and neuromuscular control, LB and hip mechanics

- Manual therapy techniques, prolotherapy, stabilization belts and exercises, orthotic devices
Home Exercise Program and Lifestyle Modifications

- *Unique per patient*
- Generally: ice massage and contrast baths to PN distribution, spouse-trained in CTM and MFR, paradoxical relaxation
- Cushion use, sit until pain increases
- Cardiovascular exercise daily
- Stretching and strengthening ONLY after MTrPs eradicated
Home Exercise Program and Lifestyle Modifications

- Unique per patient!
- PNF D2 for pelvic floor relaxation
- Nerve glides, self-mobilization
Physical Therapy Treatment Plan: Frequency and Duration

- 1 - 4 hours/week
- 12 weeks - 24 months
- Short-term hyperprotection vs long-term quality of life
- Multi-disciplinary management
CC: ‘Pain with Sitting’

- CONNECTIVE TISSUE MANIPULATION
  - Bony pelvis, posterior thigh, gluts

- Neural mobs
  - PF, Cu, N, PN

- MTrPs
  - OI, HS

- Lengthen PF

- HEP: ice massage, cardiovascular exercise, lidoderm patches
CC: ‘Foreign Object in Rectum’

- Lengthen Short Pelvic Floor
- MTrPs: iliococcygeus
- Emphasize PNF D2
- HEP: drops, squatting drops, paradoxical relaxation, fluid loading
CC: Genital ‘Hyper-arousal’

- Connective Tissue Manipulation: Emph bony pelvis
- Neural Mobs: dorsal and main branches of PN
- Lengthen short PF
- Ice massage or contrast baths to PN distribution
- Paradoxical relaxation
CC: ‘line of pain through pelvis’

- Connective Tissue manipulation: emph all tissue from PS to coccyx
- PN mobs: all branches
- Correct SIJD
- Hip ER MTrPs
‘Post-Ejaculatory/Orgasm pain’

- Neural mobs: dorsal PN branches
- Lengthen short PF
- Eliminate MTrPs: BS/IC
- Improve PF motor control
- HEP: emph drops and ice massage to PN distribution or vagina/rectal ice (in glove, 1/3 ETOH and 2/3 H2O)
CC: PABM, constipation, difficult evacuation

- EAS MTrP
- INF rectal N
- Short PF/PR
- GI regulation
- Motor control - sheet assist
- Knees higher than hips
CC: male perineum/penile pain

- Connective tissue mobs: perineum, scrotum, everything up to base of penis (suprapubic-ischial tub)
- MTrPs: perineal body, IC/BS
- Internal CT mob lateral to prostate/MFR at PS attachment
- Dry needling/lidocaine TPI
CC: Tailbone pain

- Neural mobs: 2-finger peri-rectal, bony pelvis
- Coccygeus MFR
- Coccyx mobs
- cushions
CC: Dysuria, Urinary frequency/urgency

- Internal CT/MM hypertonicity at PS
- CT at bony pelvis (emph suprapubic)
- MTrPs: RA, Adduct
- Motor control
- Behavior modification
- PNF D2
- Fluid loading
Questions?

Thank-you!