Pelvic Pain and Dysfunction

Holly Bommersbach PT, MPT
Angela De La Cruz PT, MPT

Pelvic Pain

• Pain which occurs in the perineal and/or anal areas
• Pain in the lower abdomen, low back and/or pelvic girdle
• Pain may often affect other areas, making defecation and/or penetration painful or can cause bowel/bladder urgency/frequency

Pelvic Pain

• Study of 5000 US women 18-50 years old found 1 in 7 affected by chronic pelvic pain (CPP)
• Of 500 employed women with CPP, over half reported lost time from work or reduced work productivity
• Estimated medical costs of outpatient visits for CPP in US population of women aged 18-50 years at $881 million/year

Pelvic Pain

• Musculoskeletal dysfunctions often contribute to the signs/symptoms of CPP and in many cases are the primary factor
• Physical Therapists can specialize to be skilled in the evaluation and treatment of pelvic floor musculoskeletal dysfunctions and are often successful in treating/managing CPP
Frequently Seen Pelvic Pain Diagnoses

- Endometrial adhesions or nodules on pelvic ligaments
- Referred from the low back or spine
- Pelvic trigger points
- Fibromyalgia
- Abdominal or perineal scar adhesions
- Pelvic floor dysfunction
- Levator ani syndrome
- Pelvic relaxation
- Pelvic fractures
- Coccydynia
- Vulvodynia
- Vaginismus - pelvic floor tension, myalgia and hypertonus
- Vulvar vestibulitis syndrome
- Injury sustained during sexual assault
- Results of childbirth, vaginal or cesarean section

Dysfunction Terminology

- Tone: resistance to displacement of the pelvic floor muscles at rest
  - “Spring System”
  - Normotonus
  - Hypertonus
  - Hypotonus

- Overactive Pelvic Floor
  - Muscles do not relax and may even contract with relaxation is needed such as when urinating or having a BM

- Underactive Pelvic Floor
  - Unable to voluntarily contract when this is appropriate
Dysfunction Terminology:

• Nonfunctioning Pelvic Floor Muscles - Pelvic floor muscles with no action palpable

Dysfunction Terminology:

• Short Pelvic Floor
  - Usually without increased muscle activity
  - Doesn’t respond to palpation with normal spring
  - Muscles feel like “firm shelves and violin strings”
  - Display trigger points (points of marked tenderness)
  - Relaxation difficult; slow, if at all
  - Weakness due to shortened length of muscle

Pelvic Floor Anatomy

• First layer - Superficial
  - 2 Triangles
    • Urogenital Triangle
    • Anal Triangle

Anatomy of Pelvic Floor

“Bony Landmarks and Genitalia”
Pelvic Floor Muscles: First Layer
- Perineal Membrane
- Sphincter Urethra
- Deep Transverse Perineal

Pelvic Floor Muscles: Second Layer
- Levator Ani
  - Puboccygeus
  - Puborectalis
  - Iliococcygeus

Pelvic Floor Muscles: Third Layer
Levator Ani-Layer 3

Pelvic Floor Muscles:
- Coccygeus
- Piriformis
- Obturator Internus

Pelvic Diaphragm

Innervation:
- Pudendal Nerve (S2-3) – Layers 1-3
- Sacral Nerve Roots (S3-5) – 3rd Layer, levator ani
Pudendal Nerve-Female

Evaluation

- Good, specific history taking
- General Mobility/ROM assessment; emphasis on low back, core stability and pelvis orientation
  - Joint mobility, stability, myofascial mobility, strength, movement patterns

Pelvic Floor Evaluation

- External assessment
- Internal assessment

External Assessment

- PF (pelvic floor) observation and assessing body awareness: resting position of PF as well as ability to control (contract/relax)
  - Skin condition, anatomy, posturing, if organ prolapse present
  - If anal/coccygeal diagnosis-presentation of hemorrhoids, rectal prolapse
  - External palpation of superficial PF muscles re: presence/absence of pain
Internal Assessment

- Vaginal assessment
- Rectal assessment

Internal Vaginal Assessment

- Muscle tissue integrity/presentation
  - Tone, tightness/muscle banding, trigger points, vaginal vault size, pain, referral or reproduction of pain symptoms with palpation
  - Awareness/control of PF mm; ability to contract, relax, coordination
  - Strength assessment: quick (fast twitch fibers) vs. endurance (slow twitch fibers) contraction
  - Assessment of potential prolapse of uterus, bladder, or rectum

Internal Rectal Assessment

- External Anal Sphincter (EAS), Internal Anal Sphincter (IAS), muscle integrity, tone, pain
  - Muscle awareness: ability to contract vs. relax muscles
  - Coccyx positioning, mobility, pain at coccyx/sacral borders

Treatment

- Patient Education
- Muscle relaxation (biofeedback)
- Strengthening
- PF muscle control/awareness/coordination
- Manual Therapy: stretching, trigger point release, vaginal dilators
- Pain relief: therapeutic US, heat, cold, electrical stimulation
- HEP: stretching, strengthening, stabilization, relaxation, muscle energy techniques, behavioral activities, progressive exercise program
Pelvic Floor Pain Treatment Planning

Examples of PF Dysfunctions That Improve with Physical Therapy

Physical Therapy for Coitalsexual Problems
Problems that improve with Physical Therapy: Evaluation and Treatment

Anorectal pain and sexual dysfunction
Pelvic floor muscle palpation, rectal examination, and anorectal manometry are performed. Specialized anorectal manometry is also performed. Physical therapy and behavioral therapy are provided. A multidisciplinary approach is used. Medications may be prescribed. Referral to a surgeon may be necessary.

Prostate pain and sexual dysfunction
Pelvic floor muscle palpation, rectal examination, and anorectal manometry are performed. Specialized anorectal manometry is also performed. Physical therapy and behavioral therapy are provided. A multidisciplinary approach is used. Medications may be prescribed. Referral to a surgeon may be necessary.

Physical therapy can be an effective treatment for pelvic floor pain. The program typically includes muscle strengthening exercises, relaxation techniques, and biofeedback. It is important to consult with a healthcare professional for personalized advice and treatment.

Questions??