Pelvic Pain and Therapeutic Interventions

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Objectives

- Discuss knowledge of multiple layers of the pelvis so as to support differential diagnosis conclusions and patient care planning.
- Describe the complex origins of pelvic pain; what is it, what causes it, and how does it affect everyday living for women in our communities?
- Differentiate the possible causes of pelvic pain to consider when evaluating and diagnosing patients.
- Discuss how to perform a subjective history regarding a patient’s pelvic pain, including the potentially sensitive emotional, and physical content surrounding it.

Anatomy Review

- Connective Tissue
- Neuro anatomy
- Muscular tissue
- Internal and pelvic organs
Physiology of the Pelvis
- Review of how the pelvis supports and moves
- Review of how the pelvis maintains continence
- Sexual function

Pelvic Pain
- What is pelvic pain
  - Pelvic pain is pain anywhere within the pelvic region
- Acute vs chronic
  - Acute pain is 0-2 weeks from injury or onset
  - Sub acute pain is 2-4 weeks from onset
  - Chronic pain is greater than 6 months from onset.

Pain generators
- A differential diagnosis to the pelvic pain mystery. Where is the pain coming from?
  - Obstetrical/gynecologic
  - Gastrointestinal
  - Orthopedic/musculoskeletal
  - Urologic
  - Endocrine
Gynecologic: Sapingo-oophritis, pelvic adhesions, ectopic pregnancy, endometriosis, adenomyosis, infections, hydrosalpinx, ovarian cysts, uterine fibroids, uterine, bladder, ovarian cancers, miscarriage, ovulation, menstrual cramps, STDs, pelvic organ prolapse, pelvic inflammatory disease, vestibulodynia, vulvar vestibulitis, neuroma, lichens sclerosis and Lichen’s planus

Obstetrical: pubis symphysis separation, pelvic girdle pain syndrome, round ligament pain, sciatica, vulvar varicosity, pelvic instability

Gastrointestinal: intraperitoneal adhesions, appendicitis, irritable bowel syndrome, constipation, inguinal hernias, proctalgia fugax, proctodynia, diverticulitis, Chron’s Disease.

Orthopedic/Musculoskeletal: femoral acetabular impingement, femoral neck stress fractures, ilipsoas strain, labral tears, ligamentous teres tear, chondral damage, ilipsoas tendinitis, snapping hip syndrome, sacroiliac joint pain, adductor strain, athletic pubalgia, levator ani myalgia, pudendal neuralgia, piriformis syndrome, arthritis

Urologic: kidney infections/stones, urinary tract infections, interstitial cystitis, detrusor dyssynergia

Endocrine: hormonal changers peri and post menopausal

Demographics of pain and our area

- Chronic pelvic pain affects 15% women annually in the US
- With medical costs estimated at $2.8 billion dollars a year
- 60% of women experience lower back or pelvic pain during or following pregnancy
- 17.6/1000 mothers in Hood River County are teens, while 27.2/1000 in Wasco county are teen moms
Pelvic Pain: Assessment and Treatment

- Child Birth Trauma
- Postural Dysfunction

Child birth trauma injuries

- Alcock’s Canal injury
- Pudendal Neuralgia
- Hip labral tears
- Uterine hemorrhaging
- Infections
- Perineal lacerations with grades 1-4
What can we do to help reduce the risk of child birth trauma?
- Education
- Child birthing classes for mom and partner
- Pain management techniques
- Education and practice of labor and delivery positioning options

Pelvic Pain – Child Birth Trauma
- Assessment:
  - Postural alignment
  - Scar assessment (abdominal vs pelvic)
  - Perineal mobility
  - Perineal tissue integrity
  - Cotton swab test for vulvar pain
  - Intra vaginal digital assessment
  - Strength, endurance, repetitions of levator ani contraction
  - Internal tissue integrity
Treatment:

• Hypertonic:
  ◦ External: stretching, myofascial release to the adductors, quads, hamstrings, perineal body, scar massage, and superficial muscle soft tissue work.
  ◦ Internal: digital stretching to introitus, trigger point release to the levator ani, scar management and myofascial release.

• Hypotonic:
  ◦ Strengthening: Kegels
  ◦ Endurance: 10 second hold, 10 second relaxation, 10 repetitions, 3x a day.
  ◦ Quick Flicks: 2 second hold, 2 second relax, 10 repetitions, 3x a day.
  ◦ The Knack: Kegel before cough, laugh, sneeze or lifting.

Toilet posture for hypotonic and hypertonic pelvic floor muscles.

Pelvic Pain-Postural Dysfunction

• Assessment:
  ◦ Trunk range of motion
  ◦ Breathing pattern and rib excursion
  ◦ Pelvic alignment including assessment of pubic symphysis
  ◦ Shoulder height and head position
  ◦ Knee and ankle positions
  ◦ Assessment of rectus abdominus (DRA)
Pelvic Pain-Postural Dysfunction

- **Treatment:**
  - Stretching
  - Strengthening
  - Postural alignment with manual therapy
  - Soft tissue massage and spinal pain management

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Exercises for Pelvic Pain

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Surgical interventions

- Post surgical pain lasts anywhere from 3 weeks to 3 months
- Latent surgical pain remains greater than 6 months post surgical interventions and can last for years.
- Surgical interventions that most commonly are referred to PT for pelvic pain are:
  - Post hysterectomy
  - Post bladder sling
  - Post total hip arthoplasty
  - Post cesarean section
Patient Resources

- “Reviving your Sex Life After Child Birth”
  - By Kathe Wallace, PT
- Mommy Wellness Program
- Current Medical Technologies
  - www.cmtmedical.com

Pain is the problem, rather than a symptom

- Pain is no longer reflective of ongoing tissue damage though pain is real
- Hurt no longer equals harm

Pelvic Pain-Tissue Memory/Emotional Trauma
Who?

- Attitude is everything
- People with unhealthy attitudes/beliefs about pain are more susceptible to become caught in the cycle
- This may lead to generalized malaise and decreased movement

Barriers to Consider

- Posture/Protective Mechanisms
- Beliefs of self worth
- Emotional/behavioral dysfunction
- Resources and support
- Religious, Cultural, Moral beliefs
- Fear (conscious or subconscious)
- Physical trauma in the tissue

Subjective Questioning and the emotional response

- How to take a history: “Tell me about your pain.”
- Teach them about the protective mechanism assuring them that their pain IS real, but discuss actual vs. perceived harm at the tissue level
- Be aware that an emotional response to verbal questions can elicit real pain
How to Make Change

- Activate the Limbic System to facilitate cellular re-learning and memory encoding
- How? Help the patient feel loved via compassion to trigger re-patterning
- Listening without computer, just be
- Breathing and positive visualization while moving pelvis or with Kegels
- Dim lights, breathe with patient

What do we do?

- Visualize the healthy pelvis
- Improve cortical mapping/precision
- Breathing to improve muscle timing
- Optimize posture to optimize breathing
- Janet Hulme’s hip re-patterning exercise
- Manual therapy fascial, muscular and scar tissue
- Therapeutic exercise/yoga/education

Resources

- Find a local women’s health PT, look for CAPP, WCS and or PRPC designation
- Local behavioral health resources with experience treating sexual or pelvic trauma
- Women’s groups
- The Next Door or other local women’s and children’s services
Case Study: History

- Patient is a 71 year old female at time of initial PT evaluation, with chief complaints of muscle spasms and dyspareunia worsening over the last 1 ½ years.

Case Study: Objective Exam

<table>
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<th>Right Hip AROM</th>
<th>Right Hip Pain</th>
<th>Left Hip AROM</th>
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<tbody>
<tr>
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<td>Yes</td>
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- Voluntary contraction: present
- Involuntary contraction: absent
- Voluntary relaxation: present
- Involuntary relaxation: absent
- Perineal descent: absent
- Overflow activation of abdominal muscles and gluteus maximus with attempts at levator ani isolation

- Cotton swab test: Negative for pain
Case Study: Objective Exam

- **Levator ani strength:**
  - Left: 5/5
  - Right: 5/5
  - Endurance: 10
  - Quick Flick: 10x
  - Relaxation: present with 2 second delay

- **Pelvic Organ Prolapse testing:**
  - Position: supine (pm appointment time)
  - Urethra: 0
  - Uterus/Cervix: surgically absent
  - Bladder: Grade 1
  - Rectum: 0

- **Tissue integrity:**
  - De-estrogenized tissue, small introitus and decrease vaginal vault, muscle spasm noted in bulbocavernous, and pubococcygeus bilaterally. External palpation of the coccyx demonstrates stiffness but no deviation

Case Study: Treatment

- **Manual Therapy**
  - Intra vaginal digital myofascial release of the pubococcygeus, and arcus tendinis line (ATLA)
  - Soft tissue massage to the bulbocavernous
  - Long axis gentle left hip distraction

- **Therapeutic Exercise**
  - Muscle energy technique for pelvic alignment and balancing.
  - Quadriceps, adductor, hamstring stretching, Happy Baby stretch

- **Education:**
  - Sexual position modification (quadruped with pillow support)

- **Home Program**
  - Performance of MFR with husband who was educated in clinic by therapist. Use of pelvic model, anatomy book, and therapist demonstration with patient utilized. With home performance of 8-10 minutes every other day

Case Study: Discharge from PT

- Patient was seen for 6 treatment session over a time period of 6 weeks
- Patient met all of rehab goals including being able to have pain free intercourse first the first time in 1 ½ years, and more than double her hip external rotation AROM.
- She and her husband were consistent with the home exercise program including hip distraction techniques, and intra vaginal myofascial release.
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