

# Making Chronic Pelvic Pain a Little Less Painful

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# Disclosures

None

# Objectives

- Define chronic pelvic pain.
- List the most common gynecologic and non-gynecologic etiologies of chronic pelvic pain.
- Describe appropriate management strategies for each etiology of chronic pelvic pain.

# Definition

Noncyclic pain of 6 months duration that localizes to the anatomic pelvis, anterior abdominal wall at or below the umbilicus, the lumbosacral back or the buttocks, and is of sufficient severity to cause functional disability or lead to medical care.

-ACOG

# Definitions

- Nociceptor: nerve receptor for pain
- Hyperalgesia: pain of abnormal severity after noxious stimulus
- Allodynia: pain resulting from non-noxious stimulus
- Neuropathic pain: pain persisting after healing of tissue damage

# Epidemiology

Prevalence estimated to be 15-20% of women aged 18-50 have chronic pelvic pain of at least 1 year's duration

# Impact

- Limits home or work activities in 2-5% of reproductive age women
- Reason for 10% of visits to gynecologist
- Common indication for Gyn Surgery
  - 15- 40% of laparoscopies
  - 12% of hysterectomies

# History of Pelvic Pain Concepts

- Prior to laparoscopy
  - Pain thought to be proportional to degree of damage
  - Mind/body split



# History of Pelvic Pain Concepts

- Gate-control theory
  - 1965 Melzack and Wall
  - Bidirectional flow of pain information, mediated by spinal cord “gates”
    - Peripheral to central
    - Central to peripheral

# History of Pelvic Pain Concepts

- Laparoscopy
  - Facilitated diagnosis and surgical management with decreased morbidity
  - Patients without findings on laparoscopy considered to have psychiatric etiology

# Laparoscopic Findings vs Experience of Pain

Findings on Laparoscopy: Chronic Pelvic Pain >6 mo vs Elective Sterilization

	<u>Pelvic Pain</u>	<u>Sterilization</u>
Number	100	50
Median age	29	35
Endometriosis	32%	15%
Pelvic organ adhesions	38%	12%
Bowel adhesions	10%	2%
<b>Normal Pelvis</b>	<b>9%</b>	<b>56%</b>

# History of Pelvic Pain Concepts

- Role of physical and sexual abuse
  - High prevalence among patients with chronic pain
  - Relationship not clear
    - Directly caused by trauma?
    - Sensitization via alteration of central processing?
    - Co-incidental, but not causal?

# History of Pelvic Pain Concepts

- Neuroplasticity
  - 2001 Melzack
    - Central neurophysiology can be altered by experiences
    - Mechanism for allodynia, hyperalgesia
    - Opportunity for treatment?

# Physiologic Pathways of Pelvic Pain

- Visceral:
  - poorly localized, associated nausea, vomiting, diaphoresis
  - Sympathetic nerves (T10 – L2)
    - Ovary, fundus, upper cervix
  - Parasympathetic (S 2,3,4)
    - Cervix, vulva
- Somatic:
  - more likely to be discrete
  - Sensory fibers
    - Pelvic bone, ligaments, pelvic and abdominal wall muscle, fascia

# Etiologies

## Gynecologic

- ❖ Endometriosis **A**
- ❖ Ovarian retention syndrome **A**
- ❖ Pelvic varicosities **A**
- ❖ Chronic PID **A**
- ❖ Adhesions **B**
- ❖ Degenerating fibroid **B**
- ❖ Pelvic organ prolapse **C**
- ❖ Adenomyosis **C**

## Non-Gynecologic

- ❖ Irritable Bowel Syndrome **A**
- ❖ Interstitial Cystitis **A**
- ❖ Myofascial Pain **A**
- ❖ Cutaneous nerve entrapment **A**
- ❖ Fibromyalgia **A**

**A= Good consistent scientific evidence**

**B= Limited or inconsistent evidence    C= Expert opinion**

# Multiple Etiologies Often Present

- Physical and sexual abuse (40-50%)
- Endometriosis (33%)
- Interstitial Cystitis (up to 80%)
- Irritable Bowel Syndrome (50-80%)
- Musculoskeletal disorder (up to 75%)



# Evaluation

- Duration
- Character of pain
  - Constant vs intermittent
- Cyclic or non cyclic?
  - Relation to menstrual cycle
- Intensity
  - Subjective rating
  - Functional rating
- Location
  - Radiation
  - Consistency or variability
- Deep dyspareunia?
- What makes it better? Worse?
  - GI/GU factors
  - Positions
  - Times of month

# Evaluation

## Screen for interstitial cystitis

- Frequency
  - Usually the first symptom
  - Typically void  $\geq 8$  times a day
  - Symptom may not be present
- Urgency
  - Appears somewhat later than frequency
  - Need to void to relieve pain
- Pelvic pain, pressure
  - $>6$  weeks duration
  - Present in up to 70% of women with IC
    - May be presenting complaint
  - Dyspareunia common (75%)

# Evaluation

## Screen for Irritable Bowel Syndrome

- Abdominal discomfort or pain at least 12 wks in prior 6 months
  - Not explained by structural or biochemical abnormalities
- At least two of the following
  - Pain improved with defecation
  - Onset associated with change in frequency of bowel movement
  - Onset associated with change in form of stools
    - Loose watery or pellet like
- Subtyped
  - Diarrhea, Constipation, Mixed, Unsubtyped

# Evaluation

## Assess Psychosocial Situation

- Significant impairment of physical functioning (including sexual function)
- Signs of depression
- History of sexual and/or physical abuse common but not necessarily causal
- Patient's role within family changed because of pain or pain becomes family's highest priority
- Psychological effects of chronic pain may in turn come to contribute to pain
- *Multidisciplinary response frequently needed*

# Evaluation

- Physical Examination
  - Abdominal exam
    - Have pt indicate area of pain with one finger
    - Light palpation, reserving area of indicated pain for last
    - Palpate area of pain with abdominal muscles engaged and relaxed (helps localize pain to abdominal wall vs intra-abdominal)

# Evaluation

- Physical examination
  - Musculoskeletal exam
    - Spinous process, paraspinous muscle TTP
    - Lower extremity strength, sensation, range of motion

# Evaluation

- Physical examination
  - Pelvic exam
    - External inspection; have pt localize pain
    - Q-tip testing over labia majora, minora, hymen; document areas of pain (provoked vs unprovoked vulvodynia)

# Evaluation

- Physical examination
  - Bimanual exam
    - Single digit palpation
      - Begin at urethra
      - Palpate obturator internus (1 cm cephalad to hymen at 3 and 9 OC) with and without external hip rotation
      - Palpate bladder, rectum
      - Palpate levator ani, assess strength, relaxation
      - Palpate anterior, posterior cul-de-sac
      - Palpate uterosacral ligaments
      - Palpate uterus, adnexae



# Evaluation

- Pelvic US to eval for uterine/adnexal pathology
- Laboratory studies tailored to symptoms: urinalysis, culture; fecal occult blood; CBC with diff; vaginal cultures
- Laparoscopy for treatment of US-confirmed pathology, or for diagnosis if empiric therapy fails

# Treatment

## Suspected Endometriosis

- Combined OCPs or norethindrone 5 mg qd if contraindications to estrogen
- Consider laparoscopy if no/inadequate response
- Leuprolide after laparoscopy
  - 1 month trial, followed by 6-12 month treatment, then norethindrone maintenance
  - Add-back therapy for vasomotor symptoms

# Treatment

## Musculoskeletal

- Physical therapy
  - Typically weekly sessions x 6 weeks
- Trigger point or pudendal nerve injection
  - No evidence based protocols
  - Typically weekly for 4-6 weeks, then monthly maintenance
- NSAIDs: ibuprofen 600 mg q 6h, naproxen 500 q 12h
- Jones counterstrain
  - Limited evidence, but low-cost, low-risk

# Treatment

- Interstitial cystitis
  - Urogynecology consultation
  - Limited data, but treatment often includes pentosan polysulfate sodium, physical therapy, bladder instillations, dietary changes (avoid EtOH, caffeine, citrus, oxalate, potassium)

# Treatment

- Irritable Bowel Syndrome
  - Consider GI referral
  - Dietary changes (FODMAP diet; low in fermentable oligo-, di-, and mono-saccharides, and polyols; avoid lactose, trial gluten-free diet)
  - Dicyclomine, hyoscyamine

# Treatment

- Vulvodynia
  - Consider OB/GYN consultation
  - Treat yeast, if present
  - Topical anesthetics for symptomatic relief
  - Vulvar hygiene
    - Cotton underwear, no underwear at night, avoid vulvar irritants, clean gently with water, pat dry, apply emollient (vegetable oil or petrolatum)
  - Lubricants for intercourse, topical estrogen for atrophy
  - Consider TCAs, low oxalate diet, PT

# Treatment

- Psychosocial
  - Consider referral, SSRI for comorbid moderate/severe depression
  - Counseling for h/o abuse, PTSD
  - Discuss anxiety, treat/refer as appropriate
  - Family counseling
  - Cognitive behavioral therapy
  - Treat psychosocial aspects of pain concurrently with pathology-directed diagnosis and treatment

# Treatment

- Narcotics
  - Responsible prescribing practices
    - Ideally, prescribe only if you know pain will get better with time/additional treatments (acute treatment)
    - Counsel patients as to risks and signs of tolerance, dependence, opioid-induced hyperalgesia
    - Counsel regarding safe use: avoid taking during any activity in which sedation would cause risk of harm to self or others. Store safely and securely.



# Treatment

- Clearly define and document prescribing relationship (narcotic contract)
- Utilize prescription monitoring program database
- Closely monitor for abuse/diversion (dosing adjustments without discussion, lost prescriptions, additional substance use)
- Consider suboxone if comorbid depression/concern for overdose
- Consultation with pain specialist

# Case 1

## **Patient History**

A 17-year-old high school senior visits your office for a second opinion. A gynecologist at a tertiary care center suspects endometriosis and has scheduled her for diagnostic laparoscopy.

This young woman complains of incapacitating pelvic pain. The pain has gotten worse over the past 2 years, and it is exacerbated by activity and improves when she rests. She has tried cyclic and continuous oral contraceptives, with no relief. She is now on continuous contraceptives and has been amenorrheic for several months.

# Case 1

## **Patient History (continued)**

In addition to the pelvic pain, our patient has trouble sleeping and also has pain upon urination and constipation. No bowel incontinence or pain elsewhere. Her social history is unremarkable. She is not sexually active, and there is no history of sexual or physical abuse. She is preparing for college and will likely receive an athletic scholarship for both basketball and soccer. She had a minor hip injury 2 years ago but now trains year round. She reports that she does not smoke or use alcohol.

# Case 1

## **Patient Examination**

Upon physical examination, the patient has exquisite tenderness over the pubovaginalis and levator muscles. Following voluntary contraction, she shows poor pelvic floor relaxation.

A transvaginal ultrasound appears normal, with an anteverted uterus and no adnexal masses. A rectovaginal examination was notable for tenderness but no nodularity.

# Case 2

## Patient history

30 yo G3P3 presents with a 5 year history of pelvic pain. She states she cannot recall exactly when the pain began, but it has been progressively worsening over that time period and seems to be more acutely worsened over the last 6 months. She describes the pain as a constant, dull ache, predominantly in the left lower quadrant, that also radiates down her anterior left thigh with sometimes a tingling character. She denies any weakness or numbness. She has not been able to relate the pain to any activity, time of day, menstruation, bowel movements, or emptying her bladder. The pain does seem to be worse with movement and improves slightly with ibuprofen. When it is strongest, she lies down on her side in the fetal position.

# Case 2

## Patient history (continued)

She states this pain is severely limiting her life in that she frequently misses work due to the pain and worries that she is not able to take care of her children due to the pain. It is also significantly exacerbated with intercourse and this has placed a strain on her relationship with her husband as well. She desperately wants something stronger than ibuprofen to help her manage this pain.

# Case 2

## Physical examination

As the patient gets up to move to the exam table, you note she has a limp and puts her hand over her LLQ to apply pressure. On your exam. there is no spinous process or paraspinous muscle tenderness to palpation. The abdomen is soft with mild, diffuse tenderness in the bilateral lower quadrants. When you ask the patient to point with one finger to the area that bothers her most, she indicates an area just left of midline and superior to the inguinal ligament. You palpate this area with one finger and the patient nearly jumps off the table. Palpation just one centimeter lateral or medial to this area elicits only mild tenderness.

# Case 2

## Physical exam (continued)

On pelvic exam, the patient has no suburethral TTP or tenderness beneath the bladder. Manipulation of the uterus with one finger causes marked tenderness, but when you ask the patient where the pain is, she indicates the area of focal tenderness in the left lower quadrant. She has a similar response with palpation of the left adnexa and only mild right adnexal tenderness. The uterus is otherwise small, anteverted, and mobile, although your assessment is limited by her pain.

Ultrasound exam reveals a normal uterus with no masses and normal ovaries bilaterally.



# Case 3

## **Patient History**

24 yo G3P2012 comes to your clinic with a three year history of dull, aching bilateral lower abdominal pain. She states the pain is constant, never better than a 4/10, with daily exacerbations which are stabbing in character and up to 10/10. These exacerbations occur more frequently at the time of her periods, which are regular and relatively light.

# Case 3

## Patient History (continued)

The patient has moved around a lot, due to her husband's job in the military, and she has seen multiple physicians for this pain and had multiple treatments. She had been on OCPs in the past, but stopped them after two months due to nausea; she did not believe her pain was significantly improved during those two months. She had been treating the pain at home with increasing doses of ibuprofen, and in fact was diagnosed with peptic ulcer disease 1 year ago, attributed to her frequent NSAID use.

# Case 3

## **Patient history (continued)**

After her ulcer diagnosis, a pain specialist initiated treatment with percocet 5/325 q 4 hrs prn. Over the last 18 months, her use has increased, such that she now takes 2 tabs every four hours daily. This initially did help her pain, but she now feels that it is no longer working and she is very concerned about her increasing narcotic requirement.

# Case 3

## Patient history (continued)

When questioned about the onset of her pain, she states it began at the time of her first cesarean delivery, which was performed emergently for non-reassuring fetal surveillance. She becomes tearful when describing this, stating that all she remembers was being told her baby might die and being taken emergently to the OR. She recalls being awake for the surgery and watching the c-section off of the reflection of the OR lights. She states she frequently recalls these events vividly at seemingly random times and has an overwhelming sense of anxiety with sweating and feels that her heart races.

# Case 3

## Physical examination

When asked where she has pain, pt states “my c-section” and points to her scar. Palpation over this area elicits diffuse tenderness with guarding. No palpable areas or focal areas of tenderness (trigger points) are palpated.

Pelvic exam demonstrates diffuse tenderness over the levator ani muscles bilateral, as well as diffuse adnexal tenderness. The uterus is otherwise small, anteverted and mobile.

# Case 3

## Records review

- Review of the patient's outside records includes images and operative report from a diagnostic laparoscopy three months ago, which demonstrated a normal pelvis with smooth peritoneal surfaces, normal tubes and ovaries bilaterally, and no pelvic adhesions.
- Ultrasound report demonstrates a normal-appearing uterus with no myomas, a well-defined endometrial/myometrial interface, and normal ovaries.

Questions?

# Summary

- Define chronic pelvic pain.

Noncyclic pain of 6 months duration that localizes to the anatomic pelvis, anterior abdominal wall at or below the umbilicus, the lumbosacral back or the buttocks, and is of sufficient severity to cause functional disability or lead to medical care.



# Summary

- List the most common gynecologic and non-gynecologic etiologies of chronic pelvic pain.
  - Endometriosis, musculoskeletal pain, interstitial cystitis, irritable bowel syndrome, pelvic adhesions, vulvodynia

# Summary

- Describe appropriate management strategies for each etiology of chronic pelvic pain.

# Thank you!

Please don't hesitate to get in touch with me for help with referrals for consultation, questions about patients you may be managing, or help identifying treatment resources

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## BLOG



### IPSS 2017 – A Wrap Up

January 9, 2018

The 3<sup>rd</sup> World Congress on Abdominal & Pelvic Pain and the 2017 IPSS Annual Fall Meeting has come and gone. While this was my first year in attendance, I think everyone can agree

## ANNOUNCEMENTS

### Chronic Pelvic Pain Management in Women: An Integrative Approach

Two weeks ago, PAINWeek 2017 took place in Las Vegas, Nevada. Kathryn Witzeman, MD, FACOG, gave a presentation focusing on integrative modalities for the treatment of female chronic pelvic pain. During her presentation, Dr. Witzeman discussed a wide range of integrative modalities. To learn more about Dr. Witzeman's talk, please view the Clinical Pain Advisor's conference coverage.

Posted: September 8, 2017

### Moving Forward Together As A Health Community



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