CC: Chronic “Pelvic Pain”

What are the first things that come to mind?
Objectives

COMPLETE CREOG OBJECTIVES CONCERNING CPP

Consider multifactorial nature of chronic pelvic pain in women

Consider non-gynecologic factors

Consider expanding history and physical exam in women being evaluated for CPP
Chronic Pelvic Pain (CPP)

- 1/3 women have CPP during life time
- Most pre-menopausal
- No specific demographic identifiers (unmarried, divorced)
- 40% laparoscopies for CPP
- 12% hysterectomies for CPP
- No gyn path >60% L/S for CPP
Chronic Pelvic Pain Definition

- Non-cyclic
- >6 months duration
- Localized to pelvis; ant. Abd wall below umbilicus; lumbosacral; buttock
- Sufficient severity to cause functional disability or lead to medical care
  - ACOG Technical Bulletin #51 March 2004
1. Visible pathology found at L/S may be incidental and unrelated to the pain
2. In patients with visible pathology that does contribute to nociception, the pain may differ from another patient with similar pathology
3. Pain from L/S finding is best understood in the larger context of a centralized pain disorder

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Pain Concepts

- **Neuromatrix Theory** - experiences may change neurophysiologic behavior of the CNS that influences subsequent processing of nociceptive stimuli (Physical and sexual abuse leading to allodynia or hyperalgesia)

- **Organic pathology** does not explain all pain consistently (Bigger picture is “pain syndrome” associated with other functional syndromes)

- **Central Sensitization** - pain is triggered at lower thresholds with multiple organ system nociceptive stimuli (IBS, PBS/IC, TMJ, migraine HA, fibromyalgia)
Pain Terminology

- **Nociceptor**: a nerve receptor for pain
- **Allodynia**: pain resulting from a nonnoxious stimulus
- **Hyperalgesia**: painful sensation of abnormal severity after noxious stimulation
- **Neuroplasticity**: the malleability of central pain perception mechanisms in response to chronic pain states
Chronic pelvic pain is a poorly understood phenomenon that often involves stimuli from multiple organ systems, which is influenced by prior experiences, with exaggerated responses, with both peripheral and central nervous system contributions. In theory, multiple repetitions of lower level stimuli over time leads to centralized pain amplification.
Pain Concepts

- **Treatment**- is aimed at treating the pain as the disease, instead of just a manifestation of a specific pathologic change
Chronic Pelvic Pain
Causality

- No single condition cause (unlike acute pain-appy/PID/ovarian torsion, etc)
- Associated with multiple contributors
- An exhaustive search for the source of the pain is usually unrewarding
Which of the following are true concerning Chronic Pelvic Pain?

- A. Is of 6mo or longer duration
- B. Is usually caused by a single, identifiable pathologic entity such as endometriosis, or chronic TOA/hydrosalpinges
- C. Is the indication for 40% of hysterectomies in the U.S.
- D. Women should always have laparoscopy because of its high yield for curing the source of pain
- E. All of the above
GYNECOLOGIC (CONDITIONS WHICH MAY CAUSE OR EXACERBATE CPP)

- Endometriosis (L/S 1/3 with CPP have osis)
- Malignancy (late stage)
- Residual ovary / ovarian remnant
- PID
- Pelvic venous congestion?
- Leiomyoma? (degenerating)
- Adhesions?
- Adenomyosis?
- Endometritis?
- Cervical stenosis?
- Non-endometriotic cysts?
- IUD?

UROLOGIC (CONDITIONS WHICH MAY CAUSE OR EXACERBATE CPP)

- Bladder cancer
- Interstitial cystitis
- Radiation cystitis
- Urethral syndrome
- Urethral diverticulum
- Detrusor dyssynergia?
- Chronic bladder infection?
- Urolithiasis?
- Urethral caruncle?
GASTROINTESTINAL (CONDITIONS WHICH MAY CAUSE OR EXACERBATE CPP)

- Colon CA
- Constipation
- Inflammatory bowel disease
- Irritable bowel disease
- Diverticular disease
- Chronic intermittent bowel obstruction
- Colitis

MUSCULOSKELETAL (CONDITIONS WHICH MAY CAUSE OR EXACERBATE CPP)

- Pelvic Floor myalgia (pyriformis synd, LA synd.)
- Abdominal wall myofascial pain
- Chronic low back pain (Sacroiliitis)
- Fibromyalgia
- Peripartum pelvic pain syndrome
- Poor posture
- Hernia?
- Rectus m. strain?
Chronic Pelvic Pain

- Gastrointestinal-visceral
- Urological-visceral
- Gynecological-visceral
- Musculoskeletal-somatic
- Psychological-CNS
- Neurological-neuropathic
Chronic Pelvic Pain
HISTORICAL FACTORS

- **ONSET/LOCATION (ASSOCIATED EVENTS)**

- **TIMING (CYCLIC)**
  - Menstrual cycle related? Dysmenorrhea?

- **DURATION**
  - > 6 months

- **CHARACTER**
  - Sharp, knife like
  - burning, paresthesias (neuropathic)
  - dull, achy, diffuse (visceral)

- **QUALITY (0-10)**
  - linear analog scale for monitoring progress

- **PREVIOUS THERAPIES? PROCEDURES?**

- **MODIFIERS (COITUS, POSTURE, EXERCISING, DIET, VOIDING, DEFECATION, ETC.)**
Cornerstone of the evaluation

www.pelvicpain.org International Pelvic Pain Society

CHRONIC PELVIC PAIN HISTORY AND PHYSICAL
Clues in the History

- Pain is dull and diffuse = visceral
- Cyclic pain / dysmenorrhea = hormonally responsive
- Onset during or after pregnancy = musculoskeletal
- Pain aggravated with bladder filling, urgency, suggest painful bladder syndrome/interstitial cystitis
Clues in the History

- Pain onset prior to menarche = not likely gyn
- Dysmenorrhea = initial pain symptom with endometriosis, but not pathognomonic
- Referred Pain = achy, near body surface
- Nerve Entrapment Pain = “burning, hot, electric shock”, paresthesias
Abdominal bloating, N/V, stool changes, wt loss = ? Malignancy, SBO
Chronic Pelvic Pain

PHYSICAL EXAM FACTORS

1. REPRODUCIBILITY OF THE PAIN
2. LOCALIZATION - map out the location
3. TRIGGER POINTS -
4. Correlate exam with history
“HOW WOULD YOU RATE YOUR PAIN ON A 0-10 PAIN SCALE, WITH 10 BEING THE WORST PAIN YOU COULD IMAGINE?”

“OH, I’M DEFINITELY AN 8.”
Gait and posture
Surgical scars on the back
Abdominal Exam
Carnett Sign
Pelvic Exam
Work out to in, circumferentially, localize, reproduce, and find trigger points for pain. Speculum and bimanual last

ALLODYNIA - VULVAR VESTIBULITIS

SINGLE DIGIT EXAM, WORK FROM NORMAL TO ABNORMAL
Diagnostic Tests for CPP

- **Imaging** - With a normal exam, imaging studies are of limited value (Sonography r/o mass)
- **Laboratory** - limited usefulness (CBC, ESR, UA, UPT)
ARE WE THERE YET?
1. Vary considerably-Guided by clinical impression from H+P
2. Goal is to find strategy to manage and control pain, not cure from pain
3. Multi-modal combination therapy, multiple disciplines involved
4. Patient must be a motivated, active participant with reasonable expectations
What are treatment strategies?
How can we affect peripheral pain generators?

- Medications
- Surgery / Procedures
- Alternative therapies (PT, Estim, acupuncture, chiropractic, etc.)
- Behavioral modifications (sleep, exercise, diet)
Medical Therapies for CPP

Usually used in combination

- Hormonal
- Antidepressants
- Neuroleptics
- Analgesics
- Anxiolytics
Hormonal Therapies for CPP

- **Levonorgestrel IUS (Mirena™)** - effective for endometriosis pain
- **Oral Progestins** - may worsen depression
- **OCPs** - effective for dysmenorrhea and cyclic symptoms
- **GnRH agonists** — effective for cyclic pain. Does not diagnosis gyn etiology. Not more effective than other hormonal therapies for pelvic pain. Useful to evaluate residual ovary or ovarian remnant synd, possibly deeply infiltrating endometriosis
- **Aromatase inhibitors + Norethindrone** - fewer SEs than GnRH agonists.
Antidepressants
mechanism of action for pain unknown, CNS effect

- **Tri-cyclic antidepressants**- (amitriptyline, nortriptyline, desipramine) in low doses are effective for long term pain management
- **SSRIs**- paroxetine, fluoxetine
- **SNRIs**- venlafaxine (Effexor), duloxetine (Cymbalta), desvenlafaxine (Pristiq)
Neuroleptics

Neuropathic Pain

- Gabapentin (Neurontin)
- Pregabalin (Lyrica)
- Lamotrigine (Lamictal)
Analgesics
Chronic use watch out

- **NSAIDs / COX 2 inhibitors** - renal impairment, GI bleed
- **Acetaminophen** - hepatic injury
- **Narcotics** -
  - Short-term - good
  - Long-term - addiction, narcotic bowel, opioid-induced hyperalgesia
Anxiolytics/Muscle relaxants

- **Alprazolam** - potentiate narcotic analgesic effect, addictive
- **Diazepam** -
Surgical Evaluation / Treatment

- Laparoscopy
- Nerve blocks, Muscle injections, Neurectomy
- Cystoscopy
- Hysterectomy
- Colonoscopy
Laparoscopy
Diagnosing and treating visible disease. Leaving most pelvic organs in place

- Laparoscopic treatment of both mild and severe disease provides relief (ablation vs. excision)
- Benefits of surgery may be prolonged by post op med rx including OCPs, danazol, progestins, GnRH agonists, aromatase inhibitors
- Deeply infiltrating endometriosis involving adjacent bowel, bladder, retroperitoneum treated laparoscopically-by experienced surgeon
Hysterectomy BSO

- Hysterectomy should not be considered the curative solution by patient or physician
- Is very effective treatment for central uterine pain, dysmenorrhea, AUB, and cyclic symptoms
- Reasonable expectations by patient before hysterectomy
- QOL score improvement x 4 yrs post op
Cystoscopy

- Not considered first line for evaluation of IC / PBS by AUA guidelines
- History of mesh with voiding dysfunction or hematuria
Nerve/Muscle Blocks

- Abdominal wall local injections - ilioinguinal, iliohypogastric nerve, or myofascial trigger points.
- Vaginal cuff dyspareunia
- Levator ani muscle injections - local, onabotulinum toxin A
Chronic Pelvic Pain Treatment Summary

- Since there are usually more than one causal factors involved in chronic pelvic pain…
- Treatment is directed at alleviating each component of the pain over time to improve function.
- Therefore, treatment is ongoing and aimed at controlling or managing pain vs. “curing” it.
Special cases

VAGINAL MESH

OVARIAN REMNANT SYNDROME
Special Cases

- Pelvic Congestion Syndrome
  - ? Diagnostic criteria
  - Varicosities at laparoscopy – not diagnostic
  - Int Iliac venography
  - Treatment controversial - MPA, sclerotherapy
Concerning women with Chronic Pelvic Pain which of the following is true?

- A. Management and control of the pain is the goal.
- B. Allodynia and hyperalgesia are common exaggerated pain responses found in the H+P.
- C. Women who have been physically or sexually abused will have chronic pelvic pain.
- D. Dysmenorrhea relieved by a GnRH agonist is diagnostic of endometriosis.
**HPI:** Ima Shirley Suffrin is 31 yo recently divorced P2 (LFD, C/S) with a 3 yr h/o pelvic pain. Pelvic-tender

**Plan:** Schedule diagnostic laparoscopy with fulguration of endometriosis, followed by hysterectomy BSO in 3 months if not better
Case Study
CC: Constant pelvic pain

- **HPI:** Ima Shirley Suffrin is a 31 yo divorced, P2 c/o constant pelvic pain for the past 3 years. Missing work. Worse as day progresses and when menses. Improved with hot tub.
- **OBG Hx:** G2P2 (1 vag, 1 C/S); contra=none; 2º infertility; dysmenorrhea “always had cramps”; ovulatory LMP: 3 weeks ago, Uncertain about another pregnancy
- **PMH/PSH:** Depression x 5 yrs. Fibromyalgia
- **Medications:** Paroxetine, Lortab 5
- **FH / SH:** mother had endometriosis, smoker, no suspicion of current or prior physical or sexual abuse.
- **ROS:**
  - Reproductive- mid-pelvic dyspareunia since first delivery
  - Urinary- urgency frequency of urination, cultures no growth, painful urination half the time.
  - GI- constipation since childhood, denies FI, diarrhea, dyschezia.
  - MS-low back pain off and on since fall 5 yrs ago (seeing chiropractor)
  - Neuro-poor sleep (nocturia?)
Chronic Pelvic Pain

Case study

- **Physical Exam**
  - **Constitutional**
    - 99.1°F 120/72 80 16 50kg 5’ 4” Flat affect
  - **Abdominal**
    - Soft, voluntary guarding LLQ, non-distended
    - Carnett Sign- positive for myofascial pain
  - **Pelvic**
    - Urethra- non tender visibly nl
    - Vulva- visibly nl
    - Vagina- visibly nl No POP
    - Cervix- parous, non-tender
    - Uterus- 125gm, RV, smooth, mobile, NT
    - Adnexa- Left slight tender & slight enlarged
    - LAM- generalized tenderness, spasm, unable to relax
  - **Rectal**
    - EAS increased resting tone, tender, hard stool upper rectum
  - **Neuromuscular**
    - SI joints tender
    - No deformity to back
What conditions are you considering? What would be your evaluation/treatment plan?

- Endometriosis
- Pelvic floor muscle tension
- Painful bladder syndrome / IC
- IBS
References

- ACOG Practice Bulletin 51 March 2004 - Chronic Pelvic Pain
- Gyang et al Musculoskeletal causes of chronic pelvic pain Obset and Gynecol March 2013 Vol 121, No. 3 645-50
- Steege and Siedhoff Am J Obstet Gynecol Vol 124, No. 3 Sept 2014
- Evaluation of chronic pelvic pain in women - Up to Date 2015