Chronic Pelvic Pain..... Relief for clinicians, and for patients
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Disclosures

- I have no financial disclosures
- I will discuss off-label use of drugs
The Challenge of CPP

- Frustrated (or desperate) patients want a definitive diagnosis and treatment right now
- Lack of clear national guidelines
- Lack of understanding of CPP among GYNs (and PCP’s)
- Lack of understanding among pain MDs of the pelvis
- High utilization of services often without improvement in patient pain or functioning
Goals of this lecture

- Give you hope (and skills necessary) that you can help many women with CPP
- Concentrate on interconnected, multi-factorial nature of CPP
- How to create a therapeutic relationship
- Stepwise algorithm for diagnosis AND treatment
- Treatment focus: trigger points, pelvic floor dysfunction, vulvodynia, neuropathic pain
Syllabus Note

- Syllabus includes slides that will not be addressed in lecture but are included for reference
- These slides are marked with “REF”
Overview of CPP

- Affects physical and sexual function, and emotional well-being → Severely impacts quality of life
- Multiple systems interact and contribute to the pathophysiology of CPP
- In many cases a direct cause of CPP cannot be identified
- Increased risk of a history of abuse, depression, and anxiety, which exacerbate painful symptoms
What CPP patients want

1. Personalized care
2. To feel understood and taken seriously
3. Explanation of the cause
4. Reassurance
Set clear expectations

- Ask for her goals/concerns (and acknowledge them)
- Set realistic expectations:
  1. Improvement in pain/function; not pain free
  2. You will look for conditions that can be treated, but even if can’t make clear diagnosis, you have options to help with pain
  3. This will take awhile. Multiple visits. Multiple treatment modalities
Set clear expectations (cont’d)

4. If she wants relief, she will have to work at it. (PT, exercises etc)
5. Visits scheduled, not during flares
6. Outline next steps, but don’t be pushed into an immediate diagnosis
7. You will partner with her throughout to help her improve
8. Pain contract for opiates (if necessary)
## Differential Diagnosis!

### Gynecologic
- Endometriosis*
- Adenomyosis*
- Post-PID syndrome
- Vulvodynia, vulvar vestibulitis
- Pelvic adhesions (maybe?)
- Pelvic congestion (maybe?)
- Ovarian remnant syndrome
- Leiomyoma (pressure)
- Endosalpingiosis
- Neoplasia
- Fallopian tubal prolapse (post-hyst)
- Tuberculous salpingitis
- Benign cystic mesothelioma
- Postoperative peritoneal cysts

### Urinary tract
- Interstitial cystitis*
- Recurrent UTI
- Urethral diverticulum
- Chronic urethral syndrome
- Neoplasia
- Radiation cystitis

### Mental health issues (cause increased pain)
- Somatization
- Substance abuse
- Physical and sexual abuse, PTSD
- Depression, Anxiety

### Musculoskeletal
- Pelvic floor myalgia*
- Myofascial pain (trigger point neuralgia)*
- Hernia
- Abnormal posture
- Fibromyalgia
- Chronic abdominal wall pain

### Gastrointestinal tract
- Irritable bowel syndrome*
- Chronic constipation
- Inflammatory bowel disease
- Diverticular colitis
- Chronic intermittent bowel obstruction
- Neoplasia
- Celiac disease

### Neurologic
- Neuralgia of pelvic/pudendal nerves* (post-surgical or ob)
- Herniated disc
- Neuropathic pain (diabetes)

* Most common
It’s all connected

Depression, anxiety, PTSD, IPV, h/o abuse: Exacerbate painful symptoms

Primary etiology of pain can be Gyn, GI, GU or M-S

Initial insult can cause musculoskeletal dysfunction that can persist after initial insult resolves, or can feedback and make primary visceral symptoms worse
COUNTERTHINK

WHAT DOCTORS ARE REALLY THINKING.

I HAVE NO FREAKING IDEA.

IT'S CHRONIC FATIGUE SYNDROME.

CONCEPT-MIKE ADAMS  ART-DAN BERGER  WWW.WEBTARGET.COM
Stepwise approach to Eval & Treatment

- **Step 1: Address Mental Health**
  - Treat depression if present
  - Counseling if h/o abuse

- **Step 2: Eval and treat musculo-skel issues**

- **Step 3: Choose possible diagnosis and treat empirically**

- **Step 4: If not improved:**
  - Consider another diagnosis/treatment
  - Add other meds (TCA, gabapentin)
  - Re-address M-S issues: physical therapy if not yet tried

Order of steps not important: Do in whatever order makes sense for given patient
The CPP History & PE

Not just for getting to diagnosis but also….

- Powerful therapeutic tool
- Careful history, close listening, thorough (but sensitive) PE → build rapport, trust
- Therapeutic benefit from the telling of one’s story (therefore, use written history forms only as adjunct)
- Reflect back what you have heard
- Discuss concerns, fears
Particularly Important Questions to Ask of Women With Chronic Pelvic Pain

1. What is your pain? Have you had any kind of surgery?  
2. What made your pain better?  
3. Does your pain last for weeks or months?  
4. How does your pain affect your quality of life?  
5. Is your pain worse during or after intercourse?  
6. Did anything happen that may have brought it on?  
7. Are you taking any drugs or sexually transmitted disease?  
8. Is your pain constant or intermittent?  
9. Have you ever had a miscarriage, or are you pregnant now?  
10. When did your pain start and how has it changed?  
11. Did anything happen that may have brought it on?  
12. What makes your pain better?  
13. Have you ever had any kind of surgery?  
14. Do you have pain with deep penetration during intercourse?  
15. Have you ever had an abortion, miscarriage, or have you been diagnosed with or treated for a sexually transmitted disease or pelvic inflammatory disease?  
16. What form of birth control do you use or have you used in the past?  
17. Have you ever had any kind of surgery?  
18. What makes your pain better?  
19. Are you depressed or anxious?  
20. Are you taking any drugs?  
21. Are you taking any drugs?  
22. Are you being abused physically or sexually?  
23. What other symptoms or health problems do you have?  
24. What do you believe or fear is the cause of your pain?
Timing relative to menses, urination, BM
Most endometriosis initially includes dysmenorrhea (may progress to continuous, non-cyclic pain)
Quality of pain
  Squeezing, cramps: visceral
  Sharp, shooting, lancinating: somatic
Cyclic pain is usually gynecologic but both IBS and interstitial cystitis can be worsened with menses

What do you think is the cause?
CPP: History

- **Urinary symptoms**
  - Dysuria, frequency, nocturia, incomplete voiding
  - Pain worse with full bladder?

- **GI symptoms**
  - Dyschezia, nausea, diarrhea, constipation, mucus stools, hematochezia, melena
  - Pain relieved by bowel movements?

- **Musculoskeletal symptoms**
  - LBP, joint pain, sciatica
  - Effect of movement on pain
CPP Physical Exam Goals

- Identify underlying pathology
- Reproduce pain
- Establish trust, minimize fear
- Not just a pelvic exam! Observe gait/posture, thorough exam of abd wall, pelvic floor muscles, vaginal introitus
CPP: Before Leaving…
Get More Information!!

- Pain diary with menstrual calendar
- Voiding diary
- Bladder questionnaires
- Medical record review
Puako: spotted 24 turtles!

- Puako: 2 miles down highway to the right
- Turn left at T in Puako
- Many places to get to shore
- We saw these opposite #101
Back to the Stepwise approach

- **Step 1: Address Mental Health**
  - Treat depression if present
  - Counseling if h/o abuse

- **Step 2: Eval and treat musculo-skel issues**

- **Step 3: Choose possible diagnosis and treat empirically**

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Order of steps not important: Do in whatever order makes sense for given patient.
1. Address mental health issues

- Pain has impact on quality of life and functional capacity
- Women become isolated and have difficulty communicating needs
- Relationships become strained
- Pre-existing psych issues such as PTSD exacerbated by pain
- Anxiety, depression, IPV, h/o of abuse are common act to exacerbate pain
Assess quality of life (REF)

- In the past month, how much has your pelvic pain kept you from doing your usual activities such as self-care, work or recreation? (scale 1-5)
- How much has your pelvic pain interfered with your quality of life?
- How much have the treatments you have received for your pelvic pain improved your quality of life?

- How do you cope with your pain?
- How does your partner, family etc. respond when you are in pain?
“Sensitive History”

- IPV, h/o abuse, sexual functioning, depression
- **Frame it**: remember, these pts may distrust medical system, think you are trying to say their pain is in their heads
  - “I would like to ask you questions about the rest of your life to help me understand how the pain is affecting you. This will help me know how best to treat you.”
  - “I ask these questions of all my patients”
Screen for current or prior physical or sexual violence, including events in childhood
- "At any time, has a partner hit, kicked, or otherwise hurt or threatened you?"
- “Has your partner or a former partner every hit or hurt you? Has he or she ever threatened to hurt you?”
- “Do you ever feel afraid of your partner?”
- Have you ever been forced to have sex when you didn’t want to?

Depression (12-35%)
- During the past month, have you been bothered by little interest or pleasure in doing things?
- During the past month, have you been bothered by feeling down or hopeless?”

Assess sexual functioning (68% have dysfunction)
- Desire, frequency, satisfaction, orgasm and discomfort
Treating Sexual Pain (REF)

- Learn about your body
  - Explore your pleasure spots
  - Educate your partner
- Connect with your partner in sexual and non-sexual ways
- Prepare for sex: relax the PF muscles, use lubricants, take time for arousal
- Reinvent your sex life
- Avoid painful activities

Heather Howard, PhD Sexual Rehab.org
1. Address mental health issues

- SSRI for depression
- Counseling (especially cognitive-behavioral therapy) for h/o abuse, difficulty coping with pain
- Address sexual pain
2. Evaluate and treat musculoskeletal issues
Myofascial Pelvic Pain Syndrome

- 28 muscles have direct attachments to the pelvis!
- **Inciting event**: injury/trauma, visceral condition (IBS, EM, EC), referred pain from viscera, poor posture
- **Leads to**: Short, tight, tender pelvic floor muscles and pain in pelvis, vagina, vulva, rectum, or bladder, or referred to thighs, buttocks, or lower abdomen.
- Many experts believe that many, if not most, women with chronic pelvic pain have some degree of MPPS
- Trigger points are the hallmark of myofascial pain
- Even without classic trigger points, muscular pain prominent in many women with CPP (regardless of etiology)
Pelvic Floor Myalgia

Findings
- Pain is aching, throbbing, or heaviness
- Low back, sacral pain; can radiate to hip, thigh
- Often worse with prolonged standing
- Levators are tense, tender on vaginal exam

Management
- Pelvic physical therapy and biofeedback
- Neuropathic pain medications (gabapentin, TCAs)
- Vaginal or abdominal wall trigger point injections
- Relaxation therapy (breathing, visualization)
- Ice, heat (to the vagina!)
Carnett’s Sign

- Differentiates pain originating from the abdominal wall versus peritoneal cavity (Suleiman et al., 2001)
- The patient raises her head and shoulders from the examination table while the provider palpates the tender area on the abdomen.
- Positive Carnett’s sign: pain remains unchanged or increases when the abdominal muscles are tensed.
Examining Pelvic Floor Muscles
12-point Unimanual Unidigit Vaginal Exam

- Palpate in 4 quadrants x 3 depths
- Single finger
- NO abdominal palpation
- Just beyond hymen
  - 12:00 urethra, 6:00 rectum
  - 3:00/9:00 obturator internus
- Mid-vagina
  - 12:00 bladder base, 6:00 rectum
  - 3:00/9:00 puborectalis
- Just before cervix
  - 12:00 bladder, 6:00 rectum/cul-de-sac
  - 3:00/9:00 pubo/iliococcygeus

“Does this reproduce your pain?”
A couple patients

1. 21 yo with CPP x 1.5 yr, band across her lower abd, thinks it started with IUD placement. IUD removed 3 mos ago, no change. Of note, had leg injury and walks with cane

2. 51 yo with CPP many yrs, now w 10/10 flare. RLQ. s/p hyst (no relief), s/p l/s 1 yr ago—adhesions but o/w nl. Percoset with some relief. Thinks its due to ovarian cysts b/c had some on earlier u/s.

Both had....
Myofascial Trigger Points

- Trigger points are hyperirritable palpable nodules that are taut bands of muscle fibers (Tough et al., 2007)
- When palpated the pain usually radiates to another location
- Found in abdominal wall, perineum and pelvic floor locations
  - Abdominal wall and vagina share T10-12 dermatomes with pelvic organs: Pain from trigger points referred to pelvic organs

Trigger Point Injection Therapy

- Local anesthetic injection(s) directly into trigger point (TP).
- Thought to interrupt pain pathway
- 93% success by 5th injection in abdomen (Kuan, 2006)
  - **Agent**: Lidocaine 1%, Bupivicaine 0.25%, Plus /minus triamcinolone 10mg (caution corticosteroids)
  - **Volume**: 2 to 10 cc. (use 2 cc if multiple trigger point, larger volume if only one. Beware lido toxicity—limit to <15-20 cc)
  - 22 or 25 gauge needle, long enough to reach the TP.
  - Find the TP with the needle: TP=maximal burning pain
  - Weekly injections, stop if no relief at all. Continue if any relief.
- Best if combined with physical therapy
Intravaginal trigger points can be accessed with trumpet pudendal needle guide.
Botulinum toxin

- A few small studies of injections into levator ani show benefit
- Consider it experimental
- Risk of major side effects: urinary or fecal incontinence or retention
Another patient….

25 yo with CPP and known endometriosis (l/s proven), much improved with continuous OCP but still w significant dyspareunia and pain that affects her QOL.

She had…. 
Myofascial pain treatment

- Anti-inflammatories, ice to vagina, vulva
- Refer patients to physical therapists specializing in pelvic floor muscle work (advanced training)
  - Myofascial release
  - Biofeedback
  - Home exercise program
    - Abdominal breathing, rescue poses, stretching exercises

See American Physical Therapy website for referrals
3. Choose possible diagnosis & treat empirically

These 5 diagnoses account for most known causes of CPP:

1. IBS
2. Interstitial Cystitis
3. Endometriosis
4. Adenomyosis
5. Vulvodynia/vulvar vestibulitis
"I'm afraid that your irritable bowel syndrome has progressed. You now have furious and vindictive bowel syndrome."
Irritable Bowel Syndrome (IBS)

- Pain or discomfort for 3 days/month in the prior 3 months with 2 or more of:
  - Improvement with defecation
  - Onset associated with a change in frequency of stool
  - Onset associated with a change in appearance of stool

- Symptoms lending support to diagnosis
  - >3 bm per day or <3 bm per week
  - Lumpy/hard or loose/watery stool, mucus passage
  - Urgency or incomplete emptying
  - Bloating or distension
  - Symptoms may be precipitated by meals or certain foods

- Caveats:
  - Can be worse with menses so don’t r/o if pain is cyclic

Rome III Diagnostic Criteria
Treatment for IBS (REF)

- **Dietary recommendations:**
  - Elimination diet
  - **Fiber—Mainstay of treatment**
  - Eat at regular times
  - Watch dairy products
  - Drink plenty of fluids
- **Pain/gas/bloating:** antispasmodic (dicyclomine, hyoscyamine)
- **Constipation:** increased fiber and psyllium
- **Diarrhea:** loperamide
- **Stress reduction**
- **Exercise regularly**
- **Antidepressants**
- **Alosetron** (diarrhea) or **lubiprostone** (constipation)
- **CAM:** acupuncture, herbs, probiotics, hypnosis, peppermint oil
Interstitial Cystitis (IC)

- **Symptoms/Signs**
  - Urgency, frequency, nocturia, bladder pain
  - Pain worse on filling bladder; better on voiding
  - May also have dyspareunia, urge incontinence
  - Bladder tenderness ± pelvic floor tenderness
  - Absence of objective evidence of another disease that could cause the symptoms

- **Diagnosis of IC: PUF Questionnaire** (pain/urgency/freq)
  - Max score = 35
  - PPV 91% (vs. KCL sensitivity) if score > 20
  - Lowest threshold for diagnosis is score ≥12

Treatments for IC

**Start with:**
- Oral sodium pentosan polysulfate (PPS) 100mg TID (Elmiron)
- Eliminate bladder irritants: acidic foods, artificial sweeteners, caffeine, tea, chocolate
- Stop Smoking
- Bladder training, physical therapy, stretching

Refer to urogyn if not effective:
- Intravesical treatments
  - Hydrodistension under general anesthesia: “mainstay of treatment”
  - Dimethylsulfoxide Q1-2wks x 4-8 times: remission not cure
  - BCG (Bacillus Calmette-Guerin) 6 weekly treatments
- TENS
Endometriosis (EM): Presentation

- **Classical EM** occurs in a minority of patients
  - Dysmenorrhea
  - Dyspareunia
  - Perimenstrual tenesmus, diarrhea, dysuria, hematuria, sacral backache
- Commonly, continuous CPP is the sole complaint (although many will give h/o of significant dysmenorrhea)
- Bimanual exam may show:
  - Uterosacral ligament nodularity, fixed uterine retroflexion
  - Stenotic cervical os, deviated cervix
  - Corpus and adnexal tenderness
  - Tender pelvic floor
Endometriosis (EM): Role of L/S

- Conventional wisdom
  - *EM requires a surgical diagnosis*

- Recent trend
  - Empirical diagnosis of women likely to have EM is safer and more cost-effective than laparoscopy
  - If history consistent and pain improved with either continuous hormonal methods or with GnRH agonist, assume endometriosis
  - Reserve laparoscopy to treat endometriosis in setting of infertility, desiring pregnancy (improved fertility rates after surgical treatment) and for endometriomas
Endometriosis, empiric therapy

NSAID + Continuous OC x2-3 mo

Improved?

Yes

Continue OC*

No

GnRHa x2 mo

Pain Improved?#

Yes

Complete* 6-9 mo

No

Consider L/S, other diagnoses, Musc-skel eval/trt

# Both pain score and functionality improve

*Or transition to DMPA, ?Implanon, LNG-IUS, (or OC)
Adenomyosis Presentation

- Endometrial glands, stroma within myometrium

**Symptoms**
- Onset usually in late 30s-40s
- New onset dysmenorrhea; constant CPP possible
- Sometimes: dyspareunia
- Irregular vaginal bleeding
- No bowel or bladder symptoms unless EM’osis

**Signs**
- Uterus enlarged, “boggy” and tender
- No adnexal tenderness
Adenomyosis: Diagnosis/Treatment

- **Diagnosis**
  - Pathologic diagnosis.
  - More recently, MRI being used. However, unclear clinical utility, can simply start empiric therapy.

- **Treatment:**
  - Ovarian suppression: OCs, Patch, DMPA, Implanon
  - Levonorgestrel IUD
  - If fail → hysterectomy

- Medical management often ineffective for controlling pain of adenomyosis. (works for bleeding)

- Unlike for other pelvic pain syndromes, hysterectomy for adenomyosis is often curative b/c symptoms confined to uterus
Blue Dragon Restaurant: Kawaihae

Fresh fish
Live music
Dancing
Vulvodynia

**Incidence:** 3-5% of reproductive age women

**Risk Factors:**
- Vulvovaginal infection
- OC use
- Physical, emotional or sexual trauma

**Comorbid disorders:**
- IC
- IBS
- Fibromyalgia/Chronic Fatigue Syndrome
- Psychosocial and sexual impairment
Vulvodynia: Q Tip Test

- Purpose: identify and map changes in sensation including allodynia
- Gently touch with a q-tip
- Start at the thigh and work down to perineum bilaterally
- Include clitoris and perianal areas
- Proceed from labia majora to labia minora then the vestibule
Diagnosis of Vulvodynia & Vestibulodynia

Chronic Vulvar Pain

PE
- No visible findings
- Erythema
- Hyperalgesia
- Allodynia

R/O
- Infectious, inflammatory, neoplastic and neurologic cause

Vulvodynia
- Generalized pain
- Burning, stabbing, stinging, etc.

Vestibulodynia
- Pain at vestibule only
- Provoked
- Burning

Treat accordingly
Vulvar Vestibule
Treatments: Vulvodynia & Vestibulodynia

- **Behavioral**: Avoidance of vulvar irritants, constipation, sitz bath bid followed by vaseline, Ice/cool for burning, after sex
- **Meds**: No meds clearly superior, may need to try several, Start with topical lidocaine or topical gabapentin 6%. 3 mos trial; Other meds: Oral TCA’s, Anticonvulsants, SSNRI’s, Opioids; Topical: estradiol cream (if atrophic), compounded antidepressants, anticonvulsants
- **Pelvic floor therapy, biofeedback** → very important
- Psychotherapy, CBT, Sex therapy
- Nerve blocks, Neurostimulation
- **Surgery**? For generalized vulvodynia, surgery contraindicated. For localized vestibulitis, vestibulectomy has been shown effective
4. If no improvement

- Consider another diagnosis/treatment
- Add other meds (TCA, gabapentin)
- Re-address M-S issues: physical therapy if not yet tried
When pain is a disease and not a symptom

- After 4-6 months, pain can become an illness, not just a symptom
- “Central Sensitization” = Maladaptation: “an amplification of neural signaling within the central nervous system that elicits pain hypersensitivity”
- Inciting event might have been treated, pain persists
- Treatment focuses not on cure but on managing the pain
What's the strongest over-the-counter pain killer you got?
Treating Pain: Medications

- Analgesics:
  - NSAIDS (try at least 3)
  - Opioids (short course)
  - Topical anesthetics*
- Antidepressants
  - Tricyclics*
  - SSRI’s/SNRI’s*
- Anticonvulsants
  - gabapentin
  - pregabalin

- Muscle relaxants
- Vaginal preparations (valium, anti-depressant, anti-convulsant)
- Refer to pain management
  - nerve blocks
  - neurotoxin: OnabotulinumtoxinA*
  - medication consult

*Off label use
Treatment of Neuropathic Pain

- Mainly helpful in women with daily pain
- Clinical depression is present
  - SSRI (e.g., fluoxetine) or SNRI (e.g., venlafaxine)
  - Advance to “primary care” dosing limits
- Clinical depression not prominent
  - Gabapentin 100-300 mg QHS, adv to 900 mg TID
  - TCA: nortriptyline 10 mg QHS, adv weekly to 50 mg
- Sleep problems
  - Herbals, antihistamines
  - Short acting sleeping meds: e.g., zolpidem
Integrative Approach

- **Mind/body interventions**: breathing exercises, imagery, MBSR, laughter yoga, etc.
- **Movement therapies**: yoga, Tai Chi, Feldenkrais, etc.
- **Nutrition**: anti-inflammatory diet/herbs, multivitamins, B complex, fish oil, calcium/magnesium, herbal tonics
- **Alternative providers**: TCM, craniosacral, chiropractic, energy medicine, strain/counter strain, etc.
Take It Home

- Spend time to establish trust
- Set realistic goals with your patient: improved function vs. complete remission
- Think beyond “making a diagnosis”
- Manage the reactive depression that can make the perception of pain much worse
- Pelvic floor dysfunction is common and perpetuates the pain cycle. Treat with pelvic PT plus/minus trigger point injections
- If your first empiric therapy is ineffective, don’t give up. Revisit other diagnoses, depression and musculo-skeletal issues.
- Build a community: physical therapist, pain consultant
What CPP patients want

1. Personalized care
2. To feel understood and taken seriously
3. Explanation of the cause
4. Reassurance

Although we often can’t give them #3, we can explain the interconnectedness of pelvic organs, muscles and pain pathways.
Patients don’t really come to us because they are in pain, they come to us because they are suffering.

Ling, APS Conference 2010
The End

Costa Rica: Another great place to visit.....
Resources

- International Pelvic Pain Society
- National Vulvodynia Association
- Endometriosis.org
- Sexuality Information and Education Council of US
- Interstitial Cystitis Association
- Irritable Bowel Syndrome: see NIDDK/NIH
- American Physical Therapy Association
- American Chronic Pain Association
- UCSF Chronic Pelvic Pain Clinic
References


