Evaluation of Chronic Pelvic Pain in Women

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November 2013
Chronic Pelvic Pain
Objectives

- 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

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
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
Cause(s)
It has been said that the endocrinologist approaches the diagnosis of reproductive problems in women from the top down, while the gynecologist works from the bottom up. Having found the middle ground (navel contemplation) nonproductive, I have developed a novel diagnostic approach in which the patient need not even be examined. A brief history, consisting of three questions, will suffice. Careful study of the Diagnostic System in the figure below will reveal that a preliminary diagnosis can be reached by asking whether or not the patient is pregnant and/or bleeding and/or hurting. Confirmation of the correct diagnosis, and appropriate management is trivially simple, and need not be reviewed here.

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NORMAL PREGNANCY
MENSTRUATION, DUB, RETAINED PLACENTA
OVARIAN CYST, PID
PLACENTA PREVIA, THREATENED AB, ABRUPTIO
DYSENTERY, ENDOMETRIOSIS
LABOR, ECTOPIC PREGNANCY
LABOR WITH PLACENTA PREVIA, OR ABRUPTIO
FIBROIDS, MENOPAUSE

The Journal of Irreproducible Results, Vol 27, No. 3:7
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J.I.R. 1981
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PREGNANT

1

4 6

BLEEDING

2 3

HURTING

1 5

7 8

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Vol 27, No. 37
Irreproducible Results, Inc.
RESEARCH

Chronic pelvic pain

somatization
endometriosis
Interstitial Cystitis
Irritable bowel syndrome
Pelvic floor tension myalgia
Defecatory dysfunction (chronic constipation)
Chronic Pelvic Pain

Overlap in diagnoses due to development in new pain types

- Dysuria / urgency $\rightarrow$ chronic pelvic floor contraction $\rightarrow$ abnormal muscle activity $\rightarrow$ dyspareunia $\rightarrow$ defecatory dysfunction

$\rightarrow$ Exacerbated by cyclic events (menses)
Chronic Pelvic Pain
Definition

- Subjective complaint
- \( > 6 \) mo. Duration
- Non-cyclic
- Localizes below umbilicus, anterior abd wall, lumbosacral back or buttocks.
Chronic Pelvic Pain

Cause

- No one cause (unlike acute pain/appy)
- Multiple components associated with chronic pain
- An exhaustive search for the source of the pain is usually unrewarding
- Treatment is therefore directed at alleviating each component of the pain over time to improve function
Chronic Pelvic Pain

- Gynecologic
- Urologic
- Gastrointestinal
- Musculoskeletal
- Nervous / Psychological
Chronic Pelvic Pain

**Visceral**
- Reproductive tract
- Urinary
- Gastrointestinal

**Somatic**
- Musculoskeletal (bones, ligaments, muscles, fascia)

**Nervous / Psychological**
- Peripheral nerves, CNS
Chronic Pelvic Pain

**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?
Chronic Pelvic Pain

**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?
Chronic Pelvic Pain

**Gastrointestinal** (conditions which may cause or exacerbate CPP)

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

**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

Neuro-psych (conditions which may cause or exacerbate CPP)

- Cutaneous nerve entrapment (ilioinguinal)
- Somatization
- Depression
Chronic Pelvic Pain

HISTORICAL FACTORS

**ONSET (ASSOCIATED EVENTS)**
- Soon after fall? Childbirth? Prolonged sitting/travel?

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

**DURATION**
- > 6 months

**CHARACTER**
- Sharp, knife like, burning, dull, achy

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

**VARIATION (WAX/WANES)**

**MODIFIERS (COITUS, POSTURE, EXERCISING, DIET, VOIDING, DEFECATION, ETC.)**
Chronic Pelvic Pain

PHYSICAL EXAM FACTORS

- Reproducibility of the pain
- Localization - map out the location
- Trigger points
Pelvic Floor Pain
Musculo-skeletal

- **Pelvic floor tension myalgia** - Pain due to LAMs emanating from areas of attachment
- **Coccydynia** - Pain around coccyx, usually reproducible with palpation or movement to coccyx
- **Vaginismus** - Involuntary spasm of distal 1/3 vagina interfering with coital penetration
- **Proctalgia fugax** - Fleeting severe rectal pain lasting several seconds to minutes esp. at night
- **Pelvic floor dyssynergia** (anismus) - Paradoxical contraction of pelvic floor with defecation
- **Levator ani syndrome** - Chronic anal pain lasting > 20 minutes in absence of organic disease
Pelvic Floor Anatomy Review
Boundaries of muscles difficult to distinguish
Pelvic Floor Innervation

- Pudendal nerve (S 2,3,4)- Urogenital diaphragm (perineal membrane, external anal sphincter)

- S3- levator ani m.

- Autonomic (Hypogastric n. plexus) - Internal anal sphincter (85% of resting tone)
Pelvic Floor Tension Myalgia

- Under recognized / diagnosed
- “The onset of PFTM is generally multifactorial and related to multiple pain components that coexist together”
- Risk Factors – Poor posture, leg length discrepancy, constipation
- Mechanism- chronic spasm/involuntary contraction ---- ischemia and pain
- Trigger points- variable distribution (non-dermatomal)
Pelvic Floor Tension Myalgia

Clinical Findings

- Dull, aching, heavy, “falling out”, diffuse or localized
- Associated complaints of LBP, dyschezia, constipation, leg pain, dyspareunia
- Worsened by prolonged sitting, standing, activity
- Post-coital pain or pain with or after orgasm
Case Study
CC: Constant pelvic pain

HPI: 27 yo married accountant c/o constant pelvic pain for the past 1-2 years. Missing work. Worse as day progresses and when menses. Improved with hot tub.

OBG Hx: G2P2 (1 vag, 1 C/S); contra=None; 2° infertility; dysmenorrhea; ovulatory LMP: 3 weeks ago

PMH/PSH: Depression x 5 yrs.

Medications: Paroxetine, Lortab 5

FH / SH: mother had endometriosis, smoker, no suspicion of current or prior abuse

ROS:
- Reproductive- mid-pelvic dyspareunia since first delivery
- Urinary- urgency frequency of urination, cultures no growth
- 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

- 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
Chronic Pelvic Pain
Case study

Laboratory
- Preg test negative
- UA and cultures- negative
- GC Chlamydia DNA- negative
- Pap- ASCUS HPV negative
- TSH, CMP, CBC  all nl
- CA 125= 59 U/ml
- ESR= not elevated

Imaging Studies
- Pelvic U/S – Left Ovarian cystic 4.5 cm “complex heterogeneous mass” “follow up study or CT recommended”

Interventions
- Laparoscopy- “A few spots of endometriosis” no biopsy taken ovaries normal
- Colonoscopy- normal “probably Irritable bowel”
- Cystoscopy- “ No infection, a cystocele, and a little red. Probably IC.”
Chronic Pelvic Pain
Case study

Summary of findings / Impressions

- CPP associated with:
  - Possible endometriosis- (CA 125 elev, minor implants, new cyst ovary)
  - Possible adenomyosis (dysmenorrhea, slight uterine enlargement)
  - Possible Interstitial Cystitis (urge, frequency, pain)
  - Constipation – defecatory dysfunction
  - Pelvic floor tension myalgia
  - Dyspareunia
  - Sacroiliitis + chronic low back pain
Chronic Pelvic Pain Treatments

- SSRIs (depression, “fibromyalgia”)
- Tricyclic antidepressants (anticholinergic effect, sleep aid, pain modulation)
- Surgery -
  - Hysterectomy (75% pain free 1 yr, no path > 60%)
  - Op L/S (dense adhesions, endometriosis)
  - Presacral neurlectomy & LUNA (dysmenorrhea)
- O Cs, GnRH agonists, Progestins, Danazol (endometriosis, dysmenorrhea, functional cysts)
- PT (myofascial pain)
- Fiber, magnesium supplementation, osmotic laxatives -daily regimen (constipation)
- Nutritional (avoid bladder irritants, excessive supplements, etc.)
- Exercise regularly
Chronic Pelvic Pain
Treatments for Pelvic Floor Myalgia

Physical Therapy
- Pelvic floor strengthening & control?-(NOT more Kegals, more control/relaxation)
- Lumbar sacral strengthening
- Biofeedback
- Thiele’s massage (myofascial release)

Trigger Point Injections (LA, steroids, Botox)

Non steroidal anti-inflammatories

Muscle relaxants (diazepam, tizanidine, methocarbamol)

Pelvic floor stimulation- electrogalvanic (doesn’t work)

Intravesicle therapy (IC)

Sacral Neuromodulation (InterStim™)
Chronic Pelvic Pain

What about Interstitial Cystitis?
(Urgency, frequency, or nocturia with pelvic/perineal pain)

- Commonly associated with diagnosis of endometriosis, vulvodynia, other types of pain
- Tenderness to ant. Vag/bladder base, rectal/LAM spasm, supra-pubic
- KCl sensitivity test (PST)- not sensitive or specific vs. heparin rescue. NOT RECOMMENDED – 2010 AUA IC GUIDELINES
- Cystoscopy- for gross or microhematuria-glomerulations, Hunner’s ulcers (<1%)
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.
How to get started with a pelvic floor evaluation

The pelvic diaphragm (see also pages 91 and 92) forms a musculoskeletal, fibrous lamina situated between the rectum, bladder, urethra, vagina, and anal canal. It is composed of two components: the levator ani and the coccygeus muscle. The levator ani muscle is divided into three parts: the pubococcygeus, iliococcygeus, and ischioanal muscles. The coccygeus muscle is divided into the coccygeus major and coccygeus minor. The pelvic diaphragm is essential for supporting the pelvic organs and maintaining continence.
Pelvic Floor Examination

“Your first 1,000 pelvic exams are nothing more than a social visit.”
Kermit Krantz

- Start with normal, young healthy nulliparas and palpate on parturients with epidural blocks
- Gently palpate OI & levator ani muscles on each side to ischial spines
- Have pt contract or elevate pelvic muscles while palpating. Observe for retraction of perineal body.
- Rectal exam- feel posterior, have pt elevate and feel puborectalis m. contraction
- Inspect & palpate urethra for tenderness, discharge, mesh
Pelvic floor- sacral reflex arc
Pelvic floor examination

6 o’clock-perineum vestibule

7-8 o’clock- PRM ICM
Pelvic floor examination

9-10 o’clock - OIM, ATFP

11 o’clock PCM insertion
12 o’clock urethra, bladder
Pelvic floor examination

Puborectalis m.- anal sphincter

What am I feeling for?

11 and 1 o’clock – insertion of PCM
2-4 and 8-10 o’clock – OIM and ATFP
4-5 and 7-8 o’clock - PCM ICM
6 o’clock – rectal – puborectalis m. , AS
12 o’clock - urethra and bladder base
11 and 1 o’clock – insertion of PCM
2-4 and 8-10 o’clock – OIM and ATFP
4-5 and 7-8 o’clock - PCM ICM
6 o’clock – rectal – puborectalis m. , AS
12 o’clock - urethra and bladder base
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