Newer thoughts on pelvic pain
Sumana Koduri, MD
Associate Professor, Ob/gyn and Urology
Medical College of Wisconsin

Case L.M.
• L.M. is a 46 yo G0 woman who presents with a 3 year history of worsening pelvic pain. She has a h/o endometriosis with 3 laparoscopies in the past (1991, 1997, 2011). The first 2 had helped her, but the last one did not help. She has been on continuous OCPs since 1997. Pain is constantly present. She had used depoprovera in the past, but could not tolerate it. Tried lupron last year for 6 months with no relief. Restarted continuous OCPs.

Question 1
Does L.M. have Chronic Pelvic Pain?
1. Yes
2. No
Chronic Pelvic Pain

Chronic pelvic pain (CPP) refers to pain of at least six months’ duration that occurs below the umbilicus and is severe enough to cause functional disability or require treatment.

Epidemiology of CPP

- 4-40% prevalence
- 10% of all ambulatory referrals to a gynecologist
- 10-20% of all hysterectomies performed in the US
- Accounts for up to 40% of all gynecologic laparoscopies performed in the US

Back to L.M.

PMH would likely consist of all the following except:

1. Migraines
2. IBS
3. Coronary artery disease
4. Anxiety disorder
5. Fibromyalgia
L.M.
What associated symptoms does LM likely c/o?

1. Urinary frequency and urgency
2. Difficulty falling and staying asleep
3. Chronic headaches and jaw pain
4. Constipation
5. All of the above

Etiology of CPP
- Gynecologic
- Urologic
- GI
- Neurologic
- Musculoskeletal
- Psychological
Gynecologic etiology
- Adhesions
- Endometriosis
- Ovarian cysts/masses/remnant syndrome
- PID
- Pelvic congestion syndrome
- Adenomyosis
- Chronic endometritis
- Leiomyomata
- Pelvic organ prolapse
- Vulvar vestibulitis
- Urogenital atrophy
- Cancer

Urologic etiology
- Urinary tract infections/Urethral diverticulum
- Interstitial cystitis
- Radiation cystitis
- Urolithiasis
- Detrusor overactivity/dyssynergia
- Urethral syndrome
- Urogenital atrophy
- Cancer

GI Etiology
- Inflammatory bowel disease
- Irritable bowel syndrome
- Chronic constipation
- Hernias
- Diverticular disease
- Colitis
- Adhesive disease/intermittent obstruction
- Cancer
Neurologic
- Abdominal migraine/epilepsy
- Shingles
- Neurologic dysfunction
- Nerve entrapment

Concomitant diagnoses in CPP

Stanford EJ et al. J Minimally Invasive Surgery, 2005
**OPPERA Study**

- Orofacial Pain Prospective Evaluation and Risk Assessment
- Prospective cohort study of 3200 individuals (1831 females) - 2004 to 2006
- Significant correlation between OFP among HC users (OR 1.5)
- Strong correlation between dysmenorrhea and OFP
- Higher rates of OFP and headaches in vulvar vestibulitis subjects
- Increased dysmenorrhea among women with anxiety disorder

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**Central Sensitization in CPP**

Musculoskeletal Etiology
- Abdominal wall hernia
- Nerve entrapment/neuralgia
  - Iliothoiloemoral n.
  - Pudendal n.
- Myofascial/tendon pain
  - Rectus muscle
  - Pyriformis
  - Levator ani
  - Hip flexors/extensors
  - Back muscles
- Poor posture
- Coccygeal pain

Visceral pain and myofascial dysfunction
- Visceral organ
- Hypertonic pelvic floor muscles
- Altered function of nociceptive neurons in CNS
- Central sensitization:
  - Allodynia
  - Hyperalgesia
  - Expansion of receptive fields

Acute vs Chronic pain

<table>
<thead>
<tr>
<th></th>
<th>Acute Pain</th>
<th>Chronic Pain</th>
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</thead>
<tbody>
<tr>
<td>Physiology</td>
<td>Neuronal signal</td>
<td>Reinforcing neuronal network</td>
</tr>
<tr>
<td>Experience</td>
<td>Unpleasant perception</td>
<td>Mental state (akin to depression)</td>
</tr>
<tr>
<td>Purpose and Outcome</td>
<td>Action – escape danger</td>
<td>No action – impedes normal human function</td>
</tr>
</tbody>
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Borrowed from Dr. Chelimsky
Psychological factors affecting CPP


Back to L.M.
- Med list:
  - Imitrex, Klonopin, Miralax, percocet, OCPs.
- Family history:
  - Breast CA, thyroid disease, migraines
- Gyn history:
  - infertility
- Social history:
  - Smokes ½ ppd
  - Married 4 years ago, relationship strained lately

L.M. contd.
- The next step in the evaluation of L.M. should be:
  1. Pelvic ultrasound
  2. Autonomic testing
  3. Physical examination
  4. CT scan of the pelvis
  5. Urinalysis
Evaluation

- Evaluation starts off with a good history

- Examination is geared towards the historical elements keeping above interactions in mind
Back to L.M.

- Physical examination showed:
  - Normal back with normal lower ext neurologic exam
  - Abdominal exam with mild LLQ tenderness, no rebound
  - Mild bladder tenderness
  - Moderate levator tenderness, levators hypertonic on left
  - Mild uterine tenderness, normal mobility, no US tenderness
  - Mild left adnexal tenderness

L.M. contd.

- The next step in the treatment for L.M. may include all of the following except:
  1. Trigger point injection
  2. Hysterectomy
  3. Referral to psychology
  4. Sacral neuromodulation
  5. Gabapentin
Treatment
- Geared toward primary etiology
  - Pharmacologic
  - Behavioral treatment
  - Psychologic treatment
  - Surgical treatment
  - Neuromodulation
  - Trigger point injections

Pain management
- Pharmacologic – scheduled vs prn.
  - NSAIDs
  - Opiates
  - Calcium channel blockers
  - Muscle relaxants
  - Topical anesthetics
  - Topical hormones
  - Tricyclic antidepressants
  - SNRIs
  - Anti-epileptics

Pain management
- Targeted pain procedures
  - Nerve blocks
  - Trigger point injections
  - Botox injections
  - Peripheral nerve stimulation
  - Sacral neuromodulation
Treatment

- Need to consider interactions discussed above
- Pelvic floor therapy can help with treatment as well as diagnosis
  - "breaking the cycle"
- Psychology referral
  - Cognitive behavioral therapy
- Multidisciplinary approach is important!