W8: Approach to chronic pelvic pain and sexual dysfunction

Workshop Chair: Kristene Whitmore, United States

28 August 2018 11:00 - 12:30

Start	End	Topic	Speakers
11:00	11:05	Introduction	Kristene Whitmore
11:05	11:25	Overview of chronic pelvic pain syndromes/sexual health and function	Kristene Whitmore
11:25	11:55	An Integrative Approach with complimentary medicine	Karolynn Echols
11:55	12:15	The role of physical therapy	Erica Fletcher
12:15	12:30	A patient's perspective	Jane Meijlink

Aims of Workshop

1. Overview of chronic pelvic pain (CPP) and complex of syndromes (lower urinary tract, genital pain, gastrointestinal, high tone pelvic floor dysfunction, neuropathic, psychologic, dyspareunia).
2. Evaluation of CPP – complete history and physical to identify.
3. Discuss implications of CPP with sexual dysfunction.
4. Overview of female sexual dysfunction.
5. Management of CPP and sexual dysfunction- an overview of multi-modal treatment approach with the emphasis on an individualised approach including therapies that are easily available and low budget.
6. Discuss complementary medicine and pelvic floor physical therapy and its role in CPP/sexual dysfunction.
7. Interactive discussion time.

Learning Objectives

1. Overview of chronic pelvic pain (CPP) and complex of syndromes (lower urinary tract, genital pain, vulvodynia, dyspareunia, high tone pelvic floor dysfunction, psychologic, neuropathic).
2. Discuss implications of CPP with sexual dysfunction.
3. Management of CPP and sexual dysfunction- an overview of multimodal treatment approach with the emphasis on an individualised approach including therapies that are easily available and low budget.

Learning Outcomes

Evaluate patients with chronic pelvic pain, understand its effect on sexual health and to be able to educate patients on a multimodal approach to management.

Target Audience

Physicians, Nurse Practitioners, Physician Assistants, Physical Therapists.

Advanced/Basic

Basic

Conditions for Learning

Powerpoint presentation followed by interactive discussion.

Suggested Learning before Workshop Attendance

1. Bo, Kari, et al. "An International Urogynecological Association (IUGA)/International Continence Society (ICS) Joint Report on the Terminology for the Conservative and Nonpharmacological Management of Female Pelvic Floor Dysfunction." International Urogynecology Journal, vol. 28, no. 2, 2017, pp. 191-213.

2. Doggweiler, Regula, et al. "A Standard for Terminology in Chronic Pelvic Pain Syndromes: A Report from the Chronic Pelvic Pain Working Group of the International Continence Society." Neurourology and Urodynamics, vol. 36, no. 4, 2017, pp. 984-1008.

Suggested Reading

1. Bo, Kari, et al. "An International Urogynecological Association (IUGA)/International Continence Society (ICS) Joint Report on the Terminology for the Conservative and Nonpharmacological Management of Female Pelvic Floor Dysfunction." International Urogynecology Journal, vol. 28, no. 2, 2017, pp. 191-213.

2. Doggweiler, Regula, et al. "A Standard for Terminology in Chronic Pelvic Pain Syndromes: A Report from the Chronic Pelvic Pain Working Group of the International Continence Society." Neurourology and Urodynamics, vol. 36, no. 4, 2017, pp. 984-1008.

3. An International Urogynecological Association (IUGA)/ International Continence Society (ICS) Joint Report on the terminology for the assessment of sexual health of women with female pelvic floor dysfunction

Overview of Chronic Pelvic Pain Syndromes and Implications with Sexual Health

Kristene Whitmore, MD
USA

Chronic pelvic pain (CPP) is defined as non-cyclical pain of at least six months duration that leads to decreased quality of life and physical performance. It can be located in the pelvis, lower abdomen, inguinal region, or low back and may be described as a sharp, burning, pressure, or throbbing discomfort. The pain can be complex in nature with possible gynecologic, urologic, gastrointestinal, musculoskeletal, neurologic, rheumatologic factors, and/or psycho-social attributes.

As CPP has a potential multifactorial etiology, a systematic approach is necessary in the evaluation of the patient. It is important to perform a detailed history including any pertinent medical comorbidities, laboratory results, imaging, and prior surgical procedures. The evaluation should rule out any identifiable pathology which could contribute to the pain. A thorough investigation should look into the factors that may alleviate and/or worsen the symptoms including temporality with other events that may surround the pain, the description of the quality of the pain, and any radiation of the pain. The physical examination is crucial and should be comprehensive with particular attention placed in a systems-based approach including the abdomen, back, and pelvis in standing, supine, and lithotomy positions to evaluate the skin, muscles, neurologic response, and internal organs. Given the association of CPP with depression and anxiety, providers should also assess the patients' mental health and discuss interpersonal relationships to identify potential psychosocial factors. Chronic pelvic pain may result in dyspareunia or sexual dysfunction that can have psychological implications for the patient. The patient and partner may benefit from counseling to address any underlying issues as well.

This workshop will provide an overview of the chronic pelvic pain syndrome, the multifactorial etiologies that may attribute to it, and a stepwise approach to the patient.

References and useful reading:

1. Bo, Kari, et al. "An International Urogynecological Association (IUGA)/International Continence Society (ICS) Joint Report on the Terminology for the Conservative and Nonpharmacological Management of Female Pelvic Floor Dysfunction." International Urogynecology Journal, vol. 28, no. 2, 2017, pp. 191-213.
2. Doggweiler, Regula, et al. "A Standard for Terminology in Chronic Pelvic Pain Syndromes: A Report from the Chronic Pelvic Pain Working Group of the International Continence Society." Neurourology and Urodynamics, vol. 36, no. 4, 2017, pp. 984-1008.
3. Royal College of Obstetricians and Gynaecologists. Green-top Guideline No. 41: The initial management of chronic pelvic pain. May 2012. https://www.rcog.org.uk/globalassets/documents/guidelines/gtg_41.pdf
4. American College of Obstetricians and Gynecologists. Frequently asked questions: Gynecologic problems, FAQ099, August 2011. http://www.acog.org/Patients/FAQs/Chronic-Pelvic-Pain

An Integrative Approach with complimentary medicine

Karolynn Echols, MD
USA

Pelvic pain and sexual dysfunction are dilemmas that can frustrate even the most patient of providers. Managing these conditions can be even more bewildering as they require a multidisciplinary approach in most cases.

Interstitial Cystitis (IC) is a condition that results in recurring discomfort or pain in the bladder and the surrounding pelvic area, and is often associated with urinary urgency and frequency. The prevalence has been reported as high as almost 13%.

Vulvodynia is defined as vulvar discomfort in the absence of clinically identifiable or laboratory findings. Its incidence is 17% and prevalence has been reported as high as 25%. Women describe it as vulvar irritation, soreness, tearing sensation, burning, rawness or stinging, infrequently accompanied by an itching sensation and almost always accompanied by painful intercourse. There is no one single cause for vulvodynia although genetic, immune or embryologic factors, inflammation, infection, neuropathic changes or increased urinary oxalates have been suggested.

Myofascial pain or high tone pelvic floor dysfunction is defined as trigger point pain due to short tight and weak pelvic floor muscles. The pain can range from the vulva, vagina to the uterus, rectum, urethra and bladder.

Sexual dysfunction is the departure from normal sensations and/or function experienced by a woman during sexual activity. Promotion of sexual health can be challenging and thus a multimodal approach is usually required.

Integrative Medicine (IM) is the scope of medical practice that considers the patient as a whole: mind, body, and soul, community and way of life. It utilizes all appropriate evidence-based resources and therapeutic options: conventional and complimentary alternative medicine (CAM). Therefore when practicing IM, which continues to grow significantly in popularity, it is necessary to identify the multidimensional aspects of what makes a person healthy. According to the 2007 National Health Statistics Survey almost 4 out of 10 adults had used CAM therapy within the past year most commonly being medicinal herbs and other natural products and mind-body therapies i.e. meditation, deep-breathing exercises, yoga and manual medicine i.e. chiropractic and osteopathic manipulation. Although Urology and FPMRS are predominantly surgical subspecialties, utilizing IM is not only beneficial in the perioperative period but more importantly it is beneficial in the various nonsurgical conditions including chronic pelvic pain and sexual health.

Diet and lifestyle modifications in addition to physical therapy, biofeedback, medications, surgery and integrative medicine modalities such as manual medicine, nutriceuticals, yoga, acupuncture, aromatherapy and energy medicine can be used alone or in combination to relieve symptoms and should be individualized after proper evaluation and diagnosis(es).

At the end of this workshop the provider should be able to define the basics of Integrative Medicine relevant to FPMRS, develop a basic understanding of common botanicals and medicinal herbs, minerals and supplements that can be utilized in the patient with CPP and sexual dysfuntion and learn how other available treatment options in Integrative Medicine can supplement conventional therapy in the refractory urogyn patient.

References and useful reading:

1. "Mediterranean diet pyramid: a cultural model for healthy eating" Am J of Clin Nutr, 1995; 61(suppl): 1402S-6S
2. www.Dr.Weil.com
3. FDA Drug Safety Communication: Low magnesium levels can be associated with long-term use of Proton Pump Inhibitor drugs (PPIs).
4. Heidelbaugh, Joel J. "Proton Pump Inhibitors and Risk of Vitamin and Mineral Deficiency: Evidence and Clinical Implications." Therapeutic Advances in Drug Safety 4.3 (2013): 125–133. PMC. Web. 13 Oct. 2015.
5. Deichmann R, Lavie C, Andrews S. Coenzyme Q10 and Statin-Induced Mitochondrial Dysfunction. The Ochsner Journal. 2010; 10(1):16-21.
6. www.ewg.org
7. Ripoll E, Mahowald D. Hatha Yoga therapy management of urologic disorders. World J Urol. 2002; 20: 306–309.)
8. Katayama et al. "Effectiveness of acupuncture and moxibustion therapy for the treatment of refractory interstitial cystitis" Hinyokika Kiyo. 2013 May; 59(5): 265-9.

Physical Therapy treatment for chronic pelvic pain and sexual dysfunction

Erica Fletcher PT MTC
USA

Physical Therapy evaluation and treatment is an essential component in the care of chronic pelvic pain patients [CPP]. 70-90 percent of CPP have associated diagnoses of spinal and or other musculoskeletal dysfunction. Pelvic musculoskeletal imbalance can cause or augment urologic and gynecologic symptoms.

Attendants of this workshop will gain understanding of normative pelvic biomechanics as well as the musculoskeletal imbalances commonly found in the CPP population. Participants will gain insight as to the process and theories behind successful manual physical therapy rehabilitation of the CPP population.

References:

1) Baker): Obstetrics and Gynecology Clinics of North America, vol 20,WB Saunders, Philadelphia, PA, 1993PK. Musculoskeletal origins of chronic pelvic pain: diagnosis and treatment. In Ling (ed.
2) Lee DG, Fleming A. Impaired load transfer through the pelvic girdle- anew model of altered neutral zone function. In: The 3rd Interdisciplinary World Congress on Low Back and Pelvic Pain. Vienna, Austria, 76-82, 1998.
3) Lukban J, Whitmore K, Kelogg-Spadt S, Bologna R, Lesher A, Fletcher E: The effect of manual physical therapy in patients diagnosed with interstitial cystitis, high tone pelvic floor dysfunction and sacroiliac dysfunction. Urol 57(6suppll):121-2, 2001.
4) Moldwin, RM. Interstitial cystitis and pelvic floor dysfunction: The expanding role of the physical therapy. Combined Sections Meeting, APTA Boston, MA, 2002.

A Patient Perspective to Chronic Pelvic Pan

Jane Meijlink
Netherlands

Sex plays an important role in our lives and in our very existence. Sexual intercourse is a normal part of intimate relationships with partners. In this sexually enlightened period, with multiple media outlets filled with the most intimate details about every aspect of sex, including the bestseller "50 shades of Grey," talking to others about your own intimate sexual experiences – particularly problematic aspects – is nevertheless still extremely difficult, embarrassing and enveloped in an aura of taboo.

Chronic pelvic pain conditions such as bladder pain in IC/BPS/HSB, urethral pain and vulvodynia, can have a disruptive and distressing impact on sexual relationships. Penetrative sexual intercourse and foreplay may be painful for both male and female patients. For some women, it may be totally impossible because the urethra, bladder and vagina are simply too painful, while for men, ejaculation may cause intense pain.

If this form of intimacy is taken away, cracks may appear in the relationship, leading to feelings of concern and guilt from both partners. Support group helplines are intensively used by patients who are stressed and even suicidal about failing sexual relationships and the fear of losing their partner. It is important for patients to be able to discuss this problem with their partner to try to find solutions together. However, expert help may be needed in the form of counselling or sex therapy. A big problem is that many patients find it difficult or impossible to raise this intimate and for them embarrassing topic with their doctor.

It is therefore important for the clinician treating the patient to take the initiative in raising this issue and helping the patient and partner to find expert help and advice for painful sex. This is the first step towards finding solutions while at the same time reducing the patient's emotional and psychological stress level. Every patient is different and needs an individually tailored approach since what may help one patient may exacerbate the symptoms in another. Clinics treating these patients for their chronic pelvic pain disorder should therefore ideally have nurses and counsellors trained in sexuality problems specifically for patients with chronic pelvic pain.

Many of the patient support groups now provide excellent information on sexual intimacy issues for patients both online and in the form of leaflets.

References and useful reading:

"Secret Suffering: How Women's Sexual and Pelvic Pain Affects Their Relationships".
Authors: Susan Bilheimer and Robert J. Echenberg MD. 2009
Interstitial Cystitis/Bladder Pain Syndrome: An overview of Diagnosis & Treatment.
Jane M. Meijlink
http://www.painful-bladder.org/pdf/Diagnosis&Treatment_IPBF.pdf
Bladder Health UK http://bladderhealthuk.org/
Interstitial Cystitis Association (ICA) https://www.ichelp.org/

Approach to Chronic Pelvic Pain and Sexual Dysfunction

Kristene E. Whitmore, MD
Karolynn Echols, MD
Erica Fletcher PT, MTC
Jane Meijlink

Kristene E. Whitmore, MD

ICS 2018 PHILADELPHIA

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Allergan Research
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† All financial ties (over the last year) that you may have with any business organization with respect to the subjects mentioned during your presentation

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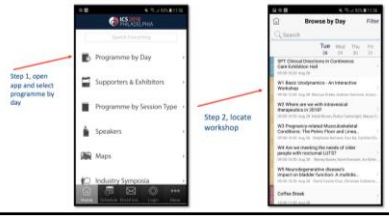

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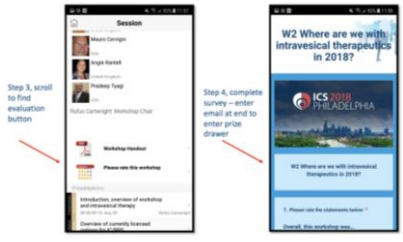

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- A shortened version of the handout has been provided on entrance to the hall
- A full handout for all workshops is available via the ICS website.
- Please silence all mobile phones
- PDF versions of the slides (where approved) will be made available after the meeting via the ICS website so please keep taking photos and video to a minimum.

An Overview of Chronic Pelvic Pain Syndromes

Kristene E. Whitmore, MD
Professor of Surgery/Urology and OB-GYN
Chair of Urology, FPMRS
Drexel University College of Medicine
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Neha Rana, MD
Fellow, Female Pelvic Medicine and Reconstructive Surgery
Drexel University College of Medicine

Chronic Pelvic Pain

Duration
- Non-cyclical pain persisting for at least 6 months

Location
- Pelvis
- Lower abdomen
- Low back
- Medial aspects of thigh
- Inguinal Area

Perception of Pain
- Sharp
- Burning
- Pressure/Discomfort
- Dull ache
- Throbbing

Modality of Pain
Persistent/Continuous
Recurrent/Episodic/Cyclic

The Standardisation of Terminology in Lower Urinary Tract Function: Report from the Standardisation Sub-Committee of the International Continence Society. P. Abrams, et al. Urology. 2002 Feb;61(1):37-49.

Chronic Pelvic Pain

Classification/Taxonomy of CPP Syndromes

Syndrome - a complex of concurrent symptoms and signs that is collectively indicative of a disease, condition, dysfunction or disorder

- Nociceptive - Non-neural tissue
- Somatic – Arises from bone, joints, muscles, skin, connective tissue
- Visceral – Intermittent, poorly localized, viscera
- Inflammatory – acute or chronic infection
- Neuropathic – primary lesion to a nerve
- Centrally-Generated/ Deafferentiation – peripheral or CNS
- Hypersensitivity increased nerve activity

Doggweiler R, Whitmore KE, Meijlink JM, et al. A standard for terminology in chronic pelvic pain syndromes: A report from the chronic pelvic pain working group of the international continence society. *Neurourology and Urodynamics*. 2017;36:984-1008.

CPP Syndromes

- The domains of CPP Syndromes include:
  - Lower Urinary Tract Pain
  - Male Genital Pain
  - Female Genital Pain
  - Gastrointestinal Pain
  - Musculoskeletal Pain
  - Neuropathic Pain
  - Psychological
  - Sexual Aspects
  - Co-Morbidities

Doggweiler R, Whitmore KE, Meijlink JM, et al. A standard for terminology in chronic pelvic pain syndromes: A report from the chronic pelvic pain working group of the international continence society. *Neurourology and Urodynamics*. 2017;36:984-1008.

Lower Urinary Tract Pain

DYSPAREUNIA

Symptoms

- **Bladder Pain**
  - Pain, pressure of discomfort
    - Bladder/referred
    - HSB, IC/BPS, IC
- **Urethral Pain**
  - Intermittent/Persistent
    - Voiding/intercourse

Signs

- **Bladder Pain**
  - Supra-pubic, Bladder tenderness
- **Urethral Pain**
  - Urethral tenderness

Abrams, Paul, et al. "The Standardisation of Terminology of Lower Urinary Tract Function: Report from the Standardisation

Lower Urinary Tract Pain

Evaluation

- **Bladder Pain/Urethral Pain**
  - Questionnaires: Voiding Diaries, O'Leary-Sant Indices, Visual Analog Sales(VAS)
  - UA, Culture
  - Post-Void Residual, Uroflow
  - Anesthetic Challenge - identify pain generator vs. referred
  - Cystoscopy
  - Urodynamics
  - Imaging: Ultrasound, MRI, CT Scan

Abraham L, Arbuckle R, Bonner N, Crook T, Humphrey L, Mills IW, et al. How do patients describe their symptoms of Interstitial Cystitis/Painful Bladder Syndrome (IC/PBS)? Qualitative interviews with patients to support the developement of a patient-reported symptom-based screener for IC/PBS. Value in Helath 2009;12(7):A320

Female Genital Pain

DYSPAREUNIA

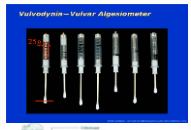
Symptoms/Signs
- **Vulvodynia**
  - Vulvar, vestibular or clitoral
  - Tenderness, fissures, ulcers or inflammation
- **Uterine/Tubal Pain**
  - Infection, endometriosis, adenomyosis, leiomyoma
  - Tenderness, erythema, discharge, adnexal mass, enlarged uterus
- **Vaginal Pain (Dyspareunia)**
  - Superficial/deep
  - Identify pain generators
- **Pelvic Floor Pain (Musculoskeletal)**
  - Bulging, Evacuation Dysfunction, dyspareunia
  - Trigger points, POP-Q evaluation
- **Pelvic Organ Malignancy**
  - Urinary, GI Dysfunction
  - Mass effect, radiation changes, scarring
- **Pain following Pelvic Surgery**
  - Organ/ nerve injuries, discharge, adhesions, mesh
  - Tenderness, discharge, extrusion

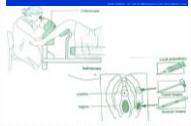
Tunitsky E, Abbott S, Bother MD Interrater reliability of the International Continence Society and International Urogynecological Association (ICS/IUGA) classification system for mesh-related complications Am J Obstet Gynecol. 2012 May;206(5):441.e1-6.

Female Genital Pain

Evaluation

- **Vulvodynia**
  - Q-tip touch test, Algesiometry
- **Uterine/Tubal**
  - C & S, US, MRI, Pathology
- **Dyspareunia**
  - FSFI, FSDS-R
- **Pelvic Floor**
  - Trigger Point Injections
  - X-Ray, US, MRI
- **Pelvic Organ malignancy**
  - Pathology
  - Imaging
- **Following Pelvic surgery**
  - US, MRI





DA Tripp, et al. Mapping of Pain Phenotypes in Female Patients with Bladder Pain Syndrome/Interstitial Cystitis and Controls. *European Urology, Volume 62, Issue 4, October 2012, Page 674*

GI Pelvic Pain

GI Symptoms - Anorectal

- **Chronic proctalgia** – chronic or recurring pain lasting at least **20 minutes**
- **Proctalgia fugax** – **recurrent, episodic** anal/rectal pain, **seconds to minutes**
- **Levator ani syndrome** – pain with sitting and defecation
- **Anal fissure** –bright red bleeding with BM, anal pain/spasm
- **Abscess** – pelvic rectal pain and tenesmus
- **Hemorrhoids**—anal discomfort with engorgement, itching
- **Anorectal Crohn's disease** –anal pain during flare

Drossman DA. Functional Gastrointestinal Disorders: History, Pathophysiology, Clinical Features, and Rome IV. *Gastroenterology*. 2016;150:1262-1279.e2.

GI Pelvic Pain

GI Symptoms – Colorectal (Rome IV criteria)

IBS – recurrent abdominal pain at least 1 day/week in the last 3 months with **2** or more of the following:
- Related to defecation
- Associated with change in stool frequency
- Associated with change in stool form

Colitis –abdominal/anal pain

Crohn's Disease –intermittent or persistent abdominal pain

Chronic constipation

Malignancy

Drossman DA. Functional Gastrointestinal Disorders: History, Pathophysiology, Clinical Features, and Rome IV. *Gastroenterology*. 2016;150:1262-1279.e2.

GI Pelvic Pain

GI Signs- Identify Pain Generators

- **Anorectal**
  - **Chronic proctalgia** –**tenderness** on rectal exam
  - **Levator ani syndrome** – tenderness during posterior traction of the puborectalis
  - **Proctalgia fugax** – usually asymptomatic
  - **Anal fissure** – **separation of the anoderm**
  - **Abscess** –collection in the perianal tissues, drainage (fistula)
  - **Hemorrhoids** –skin tags, thrombosis, prolapse on straining
  - **Anorectal - Crohn's disease** – skin tags, hemorrhoids, fissures, anal ulcers, strictures, abscess/ fistula
- **Colorectal**
  - **IBS** –abdominal tenderness
  - **Colitis** –abdominal / rectal tenderness
  - **Crohn's disease** –abdominal tenderness

GI Evaluation

- **Anorectal/Colorectal**
  - Colonoscopy, US, CT, MRI

Drossman DA, Corazziari E, Delvaux M, Spiller RC, Talley NJ, Thompson WG, Whitehead WE.Rome III: The Functional. Gastrointestinal Disorders. 3rd ed. McLean, VA: Degnon; 2006

Musculoskeletal Pain

DYSPAREUNIA

Symptoms

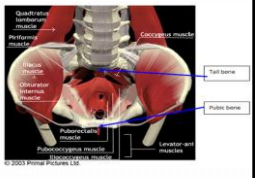
- **Pelvic floor muscle pain**
  - Perineal, levator ani, obturator internus, piriformis, coccygeus
  - Lower abdominal muscles, posterior pelvic, gluteal muscles
- **Coccyx pain syndrome**
  - Coccyx
  - Sacro-coccygeal joint
- **Pelvic Join, Ligament, or Bony pain**
  - Pubic ramus, ilium, ischial spine or tuberosity

Doggweiler R, Whitmore KE, Meijlink JM, et al. A standard for terminology in chronic pelvic pain syndromes: A report from the chronic pelvic pain working group of the international continence society. *Neurourology and Urodynamics*. 2017;36:984-1008.

Musculoskeletal Pain

Signs

- **Pelvic floor muscle pain** - tenderness over the PFM, myofascial trigger points abdominally and/ or vaginally, with increased tension on examination.
- **Coccyx pain syndrome**–Intra-rectal palpation of coccygeal tenderness over the coccyx and surrounding muscles
  - SIJD- Tenderness on bending
  - Sacrospinous ligament –tenderness, trigger point
- **Levator ani syndrome**
  - Tenderness, Trigger points



Musculoskeletal Pain

Evaluation

- Questionnaires
- Pain mapping
- Trigger point injections
- EMG, Manometry
- Imaging
  - X-Ray, MRI

Neuropathic Pain

Symptoms

- **Complex Regional Pain Syndrome**
  - **sympathetic, centrally generated pain**
- **Somatic neuropathic pain**
  - **Nerve injury**
    - **ie. Pudendal nerve**
- **Pain following mesh surgery**

Signs

- **Tenderness**
- **Trigger points**
- **Referred pain**

Doggweiler R, Whitmore KE, Meijlink JM, et al. A standard for terminology in chronic pelvic pain syndromes: A report from the chronic pelvic pain working group of the international continence society. *Neurourology and Urodynamics*. 2017;36:384-1008.

Neuropathic Pain

Symptoms

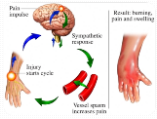
- **Complex regional pain syndrome (CRPS):**

  Skin changes, intense burning pain, the pain spreads, heightened by stress. Association with systemic disorders.
  - **CRPS 1**
  - **CRPS 2**

Signs

Complex regional pain syndrome (CRPS):

Increased skin sensitivity, changes in skin temperature, changes in skin color, changes in skin texture.



de Boer RD et al. Distribution of signs and symptoms of complex regional pain syndrome type 1 in patients meeting the diagnostic criteria of the International Association for the Study of Pain. Eur J Pain. 2011 Sep;15(8):830-41-8

Neuropathic Pain

Symptom/Signs

- **Somatic Neuropathic pain- nerve distribution**
  - **Pudendal neuropathy** – Constant burning/intense lancinating pain.
    - Pain relieved by standing or supine position.
  - **Ilioinguinal, iliohypogastric, genitofemoral, obturator**
- **Neuroma formation/ Maladaptive neuronal plasticity** - Continuous neuropathic pain in the nerve distribution.

de Boer RD et al. Distribution of signs and symptoms of complex regional pain syndrome type 1 in patients meeting the diagnostic criteria of the International Association for the Study of Pain. Eur J Pain. 2011 Sep;15(8):830-41-8

Neuropathic Pain

Symptoms

- **Pain following mesh injury**
  - pain or bleeding during sexual intercourse, pain during physical activity, spontaneous pain, or feeling mesh

Signs

- **Pain following mesh injury**
  - local tenderness with combination of redness and purulent discharge, mesh extrusion

Interrater reliability of the International Continence Society and International Urogynecological Association (ICS/IUGA) classification system for mesh-related complications . Am J Obstet Gynecol. 2012 May;206(5):442.e1-6

Neuropathic Pain

Evaluation

- Examination
  - Cotton swab sensory testing
  - Quantitative sensory testing
  - Sensory pain mapping
  - Ultrasound/ MRI
  - Nerve block
- **Neuropathic pain questionnaires:**
  - **Leeds assessment for neuropathic symptoms and signs (S-LANSS)**
  - **PainDETECT**
    - Not validated for chronic pelvic pain yet

Tu, F. F., C. M. Fitzgerald, et al. (2007). "Comparative measurement of pelvic floor pain sensitivity in chronic pelvic pain." Obstetrics and gynecology 110(6): 1244-1248

Psychological

Negative affective, cognitive and psychosocial state of chronic pain

Symptoms

Fear –agitation and dread, imminence of danger, mood changes.

Anxiety –Fear, panic attack

Signs

Fear –avoidance

Anxiety – de-conditioning, negative affect, avoidance

Asmundson MJ, Bishop MD. Psychological factors in chronic pelvic pain in women: relevance and application of the fear-avoidance model of pain. Phys Ther. 2010;90:1541-50.

Psychological

Symptoms

- **Depression**
  - altered mood, sadness, despair, sexual dysfunction, thoughts of death /suicide, sleep disorder
- **Catastrophizing**
  - exaggerated orientation, maladaptive coping mechanism, worrying, helplessness, hopelessness.
- **Anger**
  - extreme displeasure, rage, indignation, or hostility.

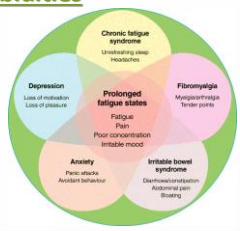
Signs

- **Depression**
  - altered mood, agitation, restlessness, irritability, weight change, difficulty concentrating , fatigue
- **Catastrophizing**
  - rumination, helplessness, magnification
- **Anger**
  - facial expression, muscle tension, eye contact

Gastin SM, Wilcox SL, Peck CC et al. Similarity of suffering: equivalence of psychological and psychosocial factors in neuropathic and non-neuropathic orofacial pain patients. Pain 2011 Apr;152(4):865-72

Extra-Pelvic Co-Morbidities

- **Fibromyalgia**
- **Chronic fatigue syndrome**
- **Autoimmune Disorders**
  - **Sjogren's Syndrome**
  - **Temporomandibular Joint Disorder/Migraine**
- **Generalized Hypersensitivity/Asthma**
- **Sleep Disorders**



A Guide for Physicians Considering Chronic Fatigue Syndrome . National Chronic Fatigue Syndrome and Fibromyalgia Association

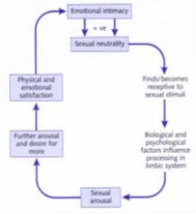
Sexual Health and Function

Does clinical education show concern for sexual health?

- Survey, N=125, 3rd and 4th year medical students
  - -75.2% considered taking a sexual history as an important part of their future career
  - -57.6% considered themselves "adequately trained" in this area
- Survey of 101 US and Canadian medical schools reported education in human sexuality was approximately **10 hrs total** in 67% of programs (including contraception and STI prevention and treatment)

Wittenberg et al. J Sex Med, 2009; 6:362-8
Solursh et al. Intl J Impot Research, 2003; 15:241-5

Female sexual response:
Basson Model



- Circular model, begins with neutrality, influenced by goal of emotional intimacy
- Physical desire may be reactive, rather than spontaneous
- Satisfaction = subjective reaction to the experience
- Importance of environment and stimuli that are conducive to sexual expression

Basson, R. Sexual Dysfunction in Medicine, 2001,vol.2, 103-31-77. Basson, R. Sexual Desire and Arousal Disorders, NEJM,2006;1654;1941-50.

HORMONES

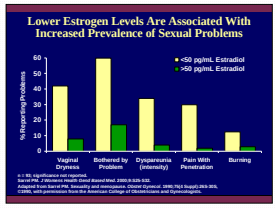
ESTROGEN

*40% of women with symptomatic vaginal atrophy secondary to low E levels confirm "adverse effects" on sexual function

*low E levels associated with reduced measures of vaginal vasocongestion in women in a *nonstimulated state*

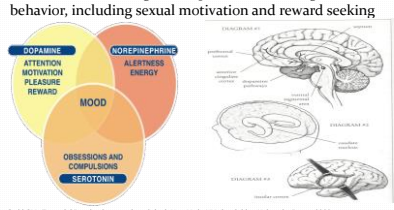
TESTOSTERONE

•Peak androgen production mid 20's --- 50% reduction by age 50



Neurotransmitters and Mood

- Neurotransmitters regulate aspects of mood, cognition, and behavior, including sexual motivation and reward seeking



Stahl SM. *Essential Psychopharmacology.* 2nd ed. New York, NY: Cambridge University Press; 2000.
Foote SL et al. In: Bloom FE and Kupfer CJ et al. *Psychopharmacology.* 1995.

Female Sexual Dysfunction Definitions

- **Female sexual interest/arousal disorder**: persistent or recurrent lack of sexual fantasies, thoughts, desires and receptivity to sexual contact
- **Sexual Aversion Disorder**: persistent or recurrent fear and/or aversion of sexual contact
- **Orgasmic Disorder**: persistent or recurrent inability to orgasm
- **Dyspareunia**: pain during sexual intercourse
- ** Must cause personal and/or interpersonal distress

Basson et al 2000. Report of the International Consensus Development Conference on FSD: Definitions and Classifications.] Urol. 163888-893.

Most common complaints : Dyspareunia and lack of arousal

- Women may be unable to separate the two disorders
- Dyspareunia leads to fear of more pain and altered arousal
- Poor arousal can lead to poor lubrication can lead to dyspareunia

Binik, HM, et al. Arch Sex. Beh, 2005; 34:11-21

Dyspareunia

Dyspareunia affects ALL other aspects of female sexual response
(eg: desire, arousal, orgasm, satisfaction)

Dyspareunia : 2 types

- Superficial (entry):
  - Introital pain often due to inflammation at the introitus associated with UTI, urethritis, vaginitis, provoked vestibulodynia
- Deep (thrusting):
  - Often occurs in women with CPP related to bladder, uterus, ovaries, bowel or pelvic floor muscle pain

Doggweiler R, Whitmore KE, Meijlink JM, et al. A standard for terminology in chronic pelvic pain syndromes: A report from the chronic pelvic pain working group of the international continence society. *Neurourology and Urodynamics*. 2017;36:984-1018.
Meston,CM etal Ann Rev Clin Psychol, 2007;3:233-56

Dyspareunia in Women

- Identify and treat all pain generators of CPP
- Identify and treat co-existing sexual dysfunctions:
  - Hypoactive Sexual Desire Disorder
  - Female Arousal Disorder
  - Female Orgasm Disorder
  - Partner concerns
- Counseling- Early
- More than 50% of women with Sexual pain have HSDD/ avoidance secondary to fear of pain
- 70-80% of patients with pelvic pain have dyspareunia

Whitmore K.E. et al JSM 2007 (4): 720-727

FSD:Diagnostic Inventories

The Female Sexual Function Index (FSFI)

- 19 items, internal consistency, test-retest reliability
- Discriminates FSD in 5 domains: desire, arousal, orgasm, satisfaction and pain

Female Sexual Distress Scale-Revised (FSDS-R)

- 13 items, standardized, Quantitative Measure of sexually related personal distress in women.
- Allows women to rate distress related to Female Sexual Dysfunction

Rosen, R et al. J Sex and Marital Therapy, 2000, 26,191-208
Rosen,R Fertil Steril 2002;77 Suppl 5 89-93.

Getting Sexual with CPP

- Management
  - Treat pain generators
  - Explore alternatives to sexual intercourse
  - Different coital positions
  - Limit thrusting time to five minutes
  - Pre-medicate with anti-spasmodics and/or muscle relaxants
  - Use hypoallergenic non-irritating artificial lubrication
  - Pre and post coital voiding
  - Post coital application of ice packs

Whitmore K E, et al JSM. 2007;4(1): 220-227

Dilators

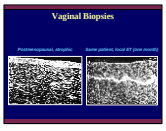
- Daily insertion training is used to facilitate intercourse
- Discuss sexual positioning
  (limit stress on affected muscle groups)
- Goal: stabilization of spasm & return of sexual function

Herman, H. Physical therapy for female sexual dysfunction. In Women's Sexual Function and Dysfunction (eds) I Goldstein et al, 2005, London, Taylor Francis

FSD Rx: Topical Treatment

Estrogen

- Introital cream qhs-qohs (Premarin cream et al)
- Intravaginal cream 1-4 gms. / wk.
- Intravaginal tabs 1-2 / wk.
- Ring therapy q 3 mos.



Freedman, M et al. The Female Patient suppl., December 2000.

FSD Rx: Topical Treatment

Testosterone (off label)

- Testim 1% gel or Intrinsic Patch
  - can also use Androgel
- Monitor FAI (TT ng/dl x 3.47 = nmol.L divided by SHBG nmol/L=FAI) Monitor q 10-12 weeks
- NL values: FAI 2.0-3.0 (ages 30-49) 3.7-4.9 (ages 20-29)

Fourcroy,JL. Drugs,2003,63(14):1445-57 / Munianz,R, Goldstein,I et al. 2001 Female Sexual Function Forum, Boston University, Guay A et al, Int J Impr Res, 2004;16:112-120, www.issam.ch/freetests/htm.

PT Treatment

Home Exercise Program:
Stretching
Strengthening
Stabilization exercises
Self-help techniques
Self-internal massage

Empower the patient

Does internal massage work?

- 42 pts with urgency-freq syndrome or IC
- 1-2 visits of PT, 8-12 wks
- 83% of urgency-freq patients/70% of IC pts had marked or mod improvement in symptoms

Weiss JM, Pelvic floor myofascial trigger points: manual therapy for interstitial cystitis and the urgency-frequency syndrome J Urol. 2001 Dec;166(6):2226-31.

Myofascial PT for CPP Syndromes

- 48 pts with CP/CPPS/IC/PBS
- Randomized myofascial PT or global therapeutic massage
- 10 weekly treatments of 1 hour
- 49% men, 51% women randomized
- 24 subjects global therapeutic massage
- 23 subjects myofascial PT
- 44% completed the study
- Response rate of 57% in myofascial PT group
- Significantly higher than the 21% response rate in the global therapeutic massage treatment group (p=0.03)

Fitzgerald, M, et al. J Urol. 2009 181:730-736

Multimodal RX with diazepam suppositories

- N=26
- 21 premenopausal, 5 menopausal; 8 multiparous; 18 nulliparous.
- 100% HTPFD; 85% dyspareunia/PVD, 81% CPP, 61% IC
- Interventions: PT, TrP injx and 10 mg diazepam vaginal suppositories, inserted nightly for 30 days.

Rogalski, M, Kellogg-Spadt, S et al, 2010, Intl Urogyn J. 895-99

Adjuvant treatment: contd

- 25 /26=" improved sexual comfort"
- Abstinence reversed in 6/7
- Perineometry baseline muscle pressures decreased significantly, both at rest and post-voluntary contraction return to rest.
- Visual analog pain ratings decreased significantly with palpation of PFM muscles evaluated pre and post-therapy.

Rogalski, M , KelloggSpadt S, et al,2010,Intl Urogyn J. 895-899.

Botox and pelvic floor spasm

- 67 women with sexual dysfunction (variable presentations)
- 20 U every 2-3 mo into levator ani
- EMG guided needle placement
- Mean of 2.4 injections/subject
- Symptom reduction 46-76%
- "Cure" rate 20-46%

Bertozzi et al. J. Is. OB & GYN 2006; 28: 264-268

ORIGINAL ARTICLE

Botulinum Toxin A Injections Into Pelvic Floor Muscles Under Electromyographic Guidance for Women With Refractory High-Tone Pelvic Floor Dysfunction: A 6-Month Prospective Pilot Study

Darlene Morrissey, DO, Dominique El-Khoussaid, MD,† Natasha Ginzburg, MD,* Salim Wehbe, MD,‡ Peter O'Hare, III, MD,* and Kristene Whitmore, MD**

- 21 women with HTPFD
- Up to 300u Botox A into PFM's
- EMG guided needle placement
- 80.9% Improvement on GRA at weeks 8, 12, and 24.
- Decreased PFM tenderness on exam at all visits
- Decreased resting pressure on vaginal manometry at all visits

ADULT UROLOGY

SACRAL NEUROMODULATION AS AN EFFECTIVE TREATMENT FOR REFRACTORY PELVIC FLOOR DYSFUNCTION

SHERIF ABOSEIF, KIRK TAMADDON, STUART CHALFIN, SHELDON FREEDMAN, AND JOHN KAPTEIN

- 64 patients (54 women, 10 men)
- 41 pts with CPP
- More than 80% had improvement in symptoms at follow up
- Pain severity scores went from 5.8 to 3.7

Behavioral Techniques

- Sex Therapy counseling focused directly on couple issues to decrease impact on relationship.
- Sensate focus: sensual touching exercises to increase awareness of sensation; shifts focus away from goal-oriented intercourse/orgasm
- Bibliotherapy: assigned reading of instructional and/or arousing literature to raise competency
- CBT: monitor thoughts, assumptions, beliefs. Replace negative emotions with positive ones

Grant M, Threlfo C. EMDR in the treatment of chronic pain. J Clin Psychol. 2011 Dec;58(12):1505-20

Behavioral techniques

- Mindfulness: a form of Buddhist meditation that produces "relaxed wakefulness" ; focus on the present
- Systematic desensitization: behavior modification used to treat fears/phobias with relaxation & reduction of anxiety
- Eye Movement Desensitization and Reprocessing: Focus on the disturbing thought while simultaneously directing eyes to follow a moving object from side to side.

Grant M, Threlfo C. EMDR in the treatment of chronic pain. J Clin Psychol. 2011 Dec;58(12):1505-20

Is FSD a mirror image of MSD?

Oberg et al.JSM. 2005 2:160-180

N= 926 Swedish women; 18-65yo

- ED =30x greater risk of HSDD
- DE =26x greater risk FSAD
- PE=4x greater risk FOD
- M-HSD=greater risk FOD

- Blumel JE et al. Menopause 2004;1:78-81.
- N=534 women ceased sex w/ male partner
- #1 reason in women <age 45= ED

MULTIPLE COUPLE STUDIES: ED Rx

IIEF scores correlate w FSFI/ISL scores

Couples increased satisfaction TOGETHER.

- **Goldstein I et a. 2005. JSM 2(6)819-32.**
- **N= 229 couples / ED Rx vs placebo**
- **Rosen et al. 2007 JSM 4(4) 1009-21.**
- **N= 229 Couples /ED: Rx vs placebo**
- **Chevret-Measson et al et al. 2009 JSM 6:761-69.**
- **N=67 couples QOL before/after ED Rx**
- **Heiman et al. 2007.BJOG 114 (4),43-47.**
- **N = 180 couples; ED Rx vs placebo**

It takes 2 to Tango

An Integrative Approach to Pelvic Pain Syndromes

Karolynn Echols, MD, FACOG, FPMRS, FABOIM
Section Chief FPMRS Ob/Gyn
Co-director Comprehensive Urogynecology and Female Pelvic Medicine
Associate Professor Obstetrics and Gynecology and Urology
Sidney Kimmel Medical College/Thomas Jefferson University

Disclosures

- Coloplast – Consultant
- Allergan - Consultant

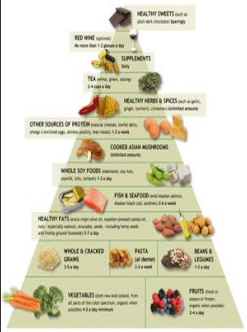
- 31 y/o female P1001 with a 6 month history of lower abdominal pressure and discomfort, **superficial AND** deep **pain with intercourse**, constipation relieved by decreased activity. Of note, her Ob hx is significant for a long labor 8 months ago with spontaneous vaginal delivery and subsequent vaginal and perineal tear that was repaired. She also has a history of "recurrent UTIs" where only one urine culture revealed E. Coli but the other cultures were negative. Although she was treated with antibiotics her symptoms never went away despite negative cultures.
- Significant physical exam findings are vulvar tenderness, bladder tenderness and levator ani tenderness on bimanual palpation….
- Differential Dx??

Diet

- Elimination
  - Bladder irritants
    - Caffeinated beverages and food
    - Carbonation
    - Nitrites
    - Alcohol
    - Added sugar/Artificial sweeteners
    - Spicy/tomato-based foods
    - Citrus
    - MSG
    - Dehydration or polydipsia: need balance
    - smoking

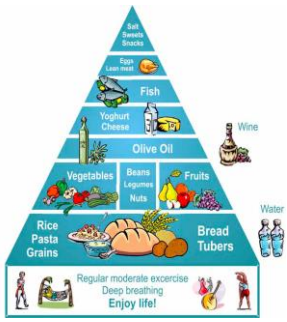
Products bothersome for IC/BPS patients/ high acidity (pro-inflammatory)	Products least bothersome for IC/BPS patients/alkaline (anti-inflammatory)
Coffee	Water
Tea	Milk
Alcohol (hard liquor < beer < wine)	Watermelon
Carbonated beverages	Bananas
Fruit juice sweetened with white sugar	Pears
Citrus fruit and juices	Blueberries
Pineapple fruit and juices	Carrots
Cranberries	Cucumber
Strawberries	Peas
Tomato and tomato base products	Brussel sprouts
Spicy food	Cauliflower
Mustard	Mushrooms
Vinegar	Squash
Soy sauce	Zucchini
Meat (pork<beef)	Potatoes (white, sweet)
Nuts	Eggs
Chocolate	Turkey
Artificial sweeteners (aspartame, Sweet N Low, NutraSweet, Equal, Splenda)	Chicken
Cheese (processed)	Fish
Smoked fish	White bread
Bread (sourdough, rye)	Pasta
	Rice
	Oats
	Popcorn

Antiinflammatory Diet
www.drweil.com



Mediterranean Diet

SOFI F 2009 The Mediterranean diet revisited: evidence of its effectiveness grows. Curr Opin Cardiol 24: 442-446.



Mediterranean Diet

- Based upon the dietary components of the Mediterranean diet, additional research shows:
- Extra virgin olive oil – reductions in CRP, TXB2, LTB4
- (Waterman, 2007)
- Walnuts – decreased TC, LDL, TGs, apoB, IL-6, TNF-alpha,
- and VCAM-1 (Banel, 2009)
- Red wine – increased HDL-C; decreased NFκB, hs-CRP, IL-6,
- VCAM-1 (Shankar, 2007)
- Fiber decreased hs-CRP, IL-6, TNF-alpha (Ma, 2008)
- Flaxseed flour –decreased TC, LDL-C, Lp(a), TNF-alpha,
- sICAM, platelet aggregation (Bassett, 2009)

Mediterranean Diet

- In a four-year prospective study of 10,000 individuals, the highest level of adherence to a Mediterranean-style diet was associated with a 42% reduction in the risk of depression
- (Sanchez-Villegas, 2009).

Vitamin D (D2 vs D3)

- Send levels to define insufficiency vs deficiency
- Vitamin D deficiency increased urinary incontinence by 170%
- Associated with Pelvic Floor Disorders

Vaughan CP, Tangpricha V, Motahar-Ford N, et al. Vitamin D and Incident Urinary Incontinence in Older Adults. European journal of clinical nutrition. 2016;70(9):987-989. doi:10.1038/ejcn.2016.20.

Navaneethan PR, Kekre A, Jacob KS, Varghese L. Vitamin D deficiency in postmenopausal women with pelvic floor disorders. Journal of Mid-Life Health. 2015;6(2):66-69. doi:10.4103/0976-7800.158948.

Badalian SS. and Rosenbaum PF. Vitamin D and Pelvic Floor Disorders in Women. Obstet Gynecol. 2010;115:795-803

Things that make you go hmmm!!

Vitamin D

- No adverse effects < 140 nmol/L (1)
- Mortality risk (autoimmune diseases, metabolic syndrome, type 2 diabetes, cancer) reduced to 1 with levels ≥ 100 nmol/l (80 ng/ml)
- UCSD study
  - Study 2012 patients followed for 19 months
  - no increase in risk of kidney stones (20-100 ng/ml)

(1) Dimitrios T. Papadimitriou. The Big Vitamin D Mistake. J Prev Med Public Health. 2017;50 (4): 278-281.

(2)Nguyen S et al. 25 Hydroxyvitamin D in the range of 20 - 100 ng.ml and incidence of kidney stones. Am J Public Health. 2014 Sep;104(9):1783-7. 2013.301368. Epub 2013 Oct 17.

Nutraceuticals

- Magnesium Glycinate 400 - 600 mg at bedtime OR (chelated Mg/Mg Gluconate/frequent Epson salt baths)
  - Reduces bladder spasms (alkanizing)
  - Helps with sleep
  - Helps with constipation
  - Relieves migraines
  - Don't forget to Eval kidney function
  - Co-factor for protein synthesis →→→→collagen
- Probiotic- L. rhamnosus, L. Reuteri, L. Crispatus, Bifidobacteria
  - Femdophilus, Women's ultraflora,
- Turmeric, omega 3 fish oil are natural antiiflammatories

Bladder Ease

- L-arginine
  - nitric oxide (NO) .
- Can relax urethral sphincter cells and modulate bladder afferent neurons.

- Quercetin – bioflavanoid
  - Avoid in pregnancy or breastfeeding, kidney dz
  - SE: headaches, stomachaches
  - Loss of protein function in high doses

Aloe

- "medicine plant" is a natural anti-microbial, analgesic and anti-inflammatory.
- Anthraquinones removed
- A small double-blind, placebo-controlled crossover trial showed significant symptomatic relief of bladder pain in the majority of patients after 3 months.

- Czarapata B. *Super-strength, freeze-dried* Aloe vera *capsules for interstitial cystitis, painful bladder syndrome, chronic pelvic pain, and nonbacterial prostatitis.* NIDDK Scientific Symposium, 1995

Nutraceuticals

- Kava Kava (*Piper methysticum)*
  - crop of the western Pacific islands
  - medicine, social drink, and sacred plant in religious ceremonies
  - The traditional kava drink is prepared from the plant's roots,
  - consumption causes a mildly talkative and sociable behavior, clear thinking and anxiolytic and muscle-relaxing effects
  - Can be hepatotoxic longterm- tea is safe

- Marshmallow Root (Althaea)
  - Perennial herb
  - Increase secretion and flow of urine
  - Mucilaginous to mucous membranes-soothing
  - Is a diuretic
  - Can decrease absorption
  - Be careful in DM as it can lower sugar

Manual Therapy

- Pelvic floor PT
  - Pelvic floor adjustments
- Counterstrain/strain
- Trigger pt release
- Massage therapy

Yoga

- There is limited evidence looking at yoga and IC. Close to 90 % of participants who took an 8-week hatha yoga class reported a reduction in their IC symptoms and stress levels
- There are several studies supporting yoga therapy in the reduction of stress and anxiety, which is extremely important for coping and functioning with this chronic and sometimes debilitating illness.
- In a study of 24 emotionally distressed women who underwent 3 months of 90-min Iyengar yoga classes twice weekly significant improvements were seen on measurements of stress and psychological outcomes.

(Ripoli E, Mahowald. Hatha Yoga therapy management of urologic disorders. World J Urol, 2002; 20:306-309.)

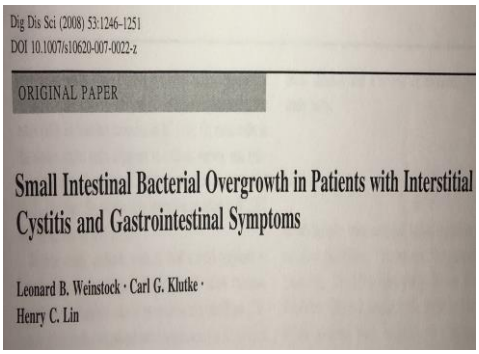
(Michalsen A, Grossman P, Acil A, Langhorst J, Lüdtke R, Esch T, Stefano GB, Dobos GJ. Rapid stress reduction and anxiolysis among distressed women as a consequence of a three-month intensive yoga program. Med Sci Monit. 2005;11(12):CR555.)

Mindfulness

- Guided imagery uses music, words, or images to attain a beneficial response.
- A RCT pilot study was conducted on 30 women with pelvic pain and IC. The study showed a trend toward improvement of IC symptoms with twice a day guided imagery therapy after 8 weeks (Carrico DJ, Peters KM, Diokno AC. Guided imagery for women with interstitial cystitis: results of a prospective, randomized controlled pilot study. J Altern Complement Med. 2008; 14(1):53-60).
- Stress reduction is essential to achieve in patients with CPP. Stress can cause detrimental effects to the patient's health by stimulating the pro-inflammatory cascade.
- Effective stress management and treatment has positive and lasting effects on mental stability and function and ultimately pain management (Mendelowitz F, Moldwin R. Complementary therapies in the management of interstitial cystitis. In: Sant G, editor. Interstitial cystitis. Philadelphia: Lippincott-Raven; 1997. p. 235-9.96).

Acupuncture

- Traditional
  - Acupuncture works by neuromodulation, which establishes the balance between Yin and Yang
  - Rapkin and Kames studied 14 patients and found that 6-8 weeks of acupuncture applied to the bladder meridians reduced IC pain.
    (Rapkin AJ, Kames LD. The pain management approach to chronic pelvic pain. J Reprod Med. 1987;32:323-7).
- Battlefield Auricular
  - **Battlefield Acupuncture: An Emerging Method for Easing Pain. Levy, Charles, E., MD; Casler, Nicholas, BS; FitzGerald, David, B., MD. American Journal of Physical Medicine & Rehabilitation: March 2018 - Volume 97 - Issue 3 - p e18-e19.**



Dig Dis Sci (2008) 53:1246–1251
DOI 10.1007/s10620-007-0022-z

ORIGINAL PAPER

Small Intestinal Bacterial Overgrowth in Patients with Interstitial Cystitis and Gastrointestinal Symptoms

Leonard B. Weinstock · Carl G. Klutke · Henry C. Lin

SIBO

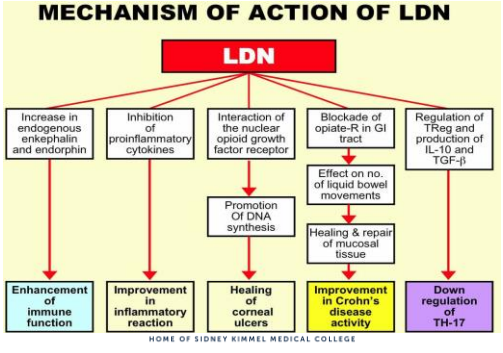
- Increase in normal bacteria
- Sx: Gas, flatulence, bloating, malabsorption, subtle malnutrition
- Causes: Chronic PPI, poor diet, DM, Celiac, scleroderma

SIBO

- Conventional Rx: Rifaximin, Neomycin, Metronidazole
- Integrative approach
  - Maintain normal small bowel motility
  - Try to discontinue PPIs and antacids
    - Tapering off antacids slowly over 3-4 months
    - Prevents over secretion of acid that can accompany sudden withdrawal
  - Control diet: avoid fructose, fructans, and poorly digestible starches such as beans must be avoided (FODMAP- fermentable, short chain carbohydrates)
  - Preserve ileocecal valve

SIBO

- Antimicrobial herbal preparation
  - 2 capsules bid Dysbiocide and FC Cidal (Biotics, Research Laboratories, Rosenberg, Texas) for 4 consecutive weeks
- Bifidobacteria-based probiotics that reduce inflammation can be helpful
- Acupuncture to facilitate GI motility can be helpful
- Behavioral therapy to reduce stress if also helpful.



Low Dose Natrexone (LDN)

- Reduces inflammation in the brain
- Blocks opioid growth factor and its receptor
  - Boots immune system
  - Production of more beta-endorphins and met-enkephalin
- FM, autoimmune disease, RA, IBS, opioid abuse
- 1.5 mg to 3 mg qhs (can go up to 6mg)

Cannabis

- CBD
- Hemp
- THC

Health Effects of Marijuana	THC	THCA	THCV	CBD	CBDA	CBG	CBGA	CBC	Benefits
Pain relief	■			■		■			Analgesic
Reduces inflammation	■	■		■		■		■	Anti-inflamatory
Supresses appetite			■						Anorexic
Stimulates appetite	■			■					Appetite stimulant
Reduces vomiting and nausea	■			■					Antimetic
Reduces contractions of small intestine				■					Intestinal antiprokinetic
Relieves anxiety				■					Anxiolytic
Tranquilizing / psychosis management				■					Antipsychotic
Reduces seizures and convulsions	■	■		■					Antiepileptic
Suppresses muscle spasms	■			■					Antispasmodic
Aides sleep				■					Anti-insomnia
Reduces efficacy of immune system				■					Immunosuppresive
Reduces blood sugar levels		■							Anti-diabetic
Prevents nervous system degeneration				■					Neuroprotective
Treats psoriasis				■					Antipsioratic
Reduces risk of artery blockage				■					Anti-ischemic
Kills or slows bacteria growth				■		■		■	Anti-bacterial
Treats fungal infection				■		■		■	Anti-fungal
Inhibits cell growth in tumours / cancer		■		■		■		■	Anti-proliferative
Promotes bone growth			■	■		■			Bone-stimulant

Regenerative medicine

- Micro RNA- FDA regulated
- Stem cell- off label

- 31 y/o female P1001 with a 6 month history of lower abdominal pressure and discomfort, **superficial AND** deep **pain with intercourse**, constipation relieved by decreased activity. Of note, her Ob hx is significant for a long labor 8 months ago with spontaneous vaginal delivery and subsequent vaginal and perineal tear that was repaired. She also has a history of "recurrent UTIs" where only one urine culture revealed E. Coli but the other cultures were negative. Although she was treated with antibiotics her symptoms never went away despite negative cultures.
- Significant physical exam findings are vulvar tenderness, bladder tenderness and levator ani tenderness on bimanual palpation….
- Differential Dx??

Echols' Basic CAM/IM Algorithm

1. Diet if GI check for SIBO
2. Omega 3 Fish Oil
   - 4 gm (EPA 2-3 gm; DHA 1-2 gm)
3. +/- Turmeric (standardized to 95% curcumin)
   - 1000-1500 mg daily (2 – 3 divided doses)
4. Magnesium glycinate or chelated Mg
   - 400 mg then increase to 600 mg daily (twice daily dosing)
5. Check Vitamin D levels and replace as needed
6. If myalgia or pudendal neuralgia – trigger pt/ micro RNAs
7. Add Bladder Ease/marshmallow root
8. Manual Therapy/yoga/Mindfulness/Aromatherapy
9. Conventional
10. Acupuncture/reflexology
11. LDN/Cannabis
12. Reassess in 6 weeks

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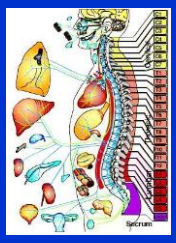
Physical Therapy for Chronic Pelvic Pain and Sexual Dysfunction

Philadelphia 2018

Erica Fletcher PT, MTC



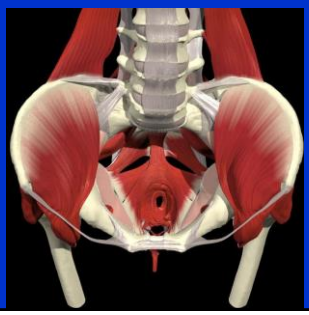
Physical Therapy is an essential component in the care of pelvic pain patients

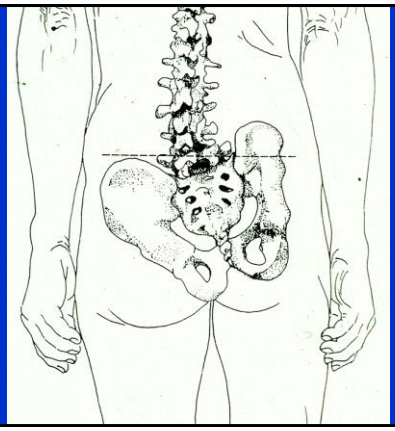
- 70-90 % have identified associated biomechanical dysfunction
-
- Biomechanical imbalance can cause or augment urological and gynecological symptoms

Physical Therapy Evaluation

- Pelvic joint biomechanics
- Pelvic girdle muscle function
- Muscle firing patterns
- Pelvic Floor muscle function

Pelvic Biomechanics





Pelvic Stability Concepts

Form Closure

Force Closure

Stability

- Articular surfaces

Form Closure

- Ligaments

- Fascia

Force Closure

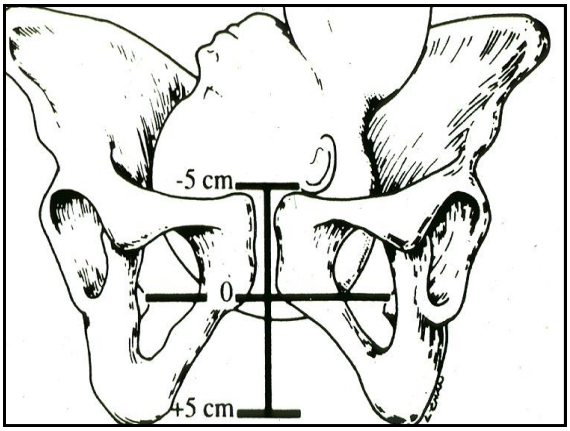
- Muscles

Supportive Structure

- Balanced form and force closure increase stability
- Tensegrity model
- Asymmetric or inadequate forces facilitate joint or soft tissue strain

Lack of form closure in the female pelvis

- Larger inlet
  - Sacral angle with innominate more vertical
  - Pubic symphysis and SI less stable
- Trochanters
  - Wider apart
  - Vector force created by gluteus medius decreased
  - Greater forces produced at femoral head



Lack of Form Closure

- Greater potential of mobility
- Increased necessity optimal neural control
- Optimal coordination of muscles
- Need for healthy connective tissue

Common Findings in the Pelvic Pain Population

- Hyper mobility of the SI joint
- Hypo mobility of proximal or distal joints and tissues
- Positional faults of the innominate, sacrum and spine
- Isolated muscle inhibition/weakness of specific muscles
- High tone/tightness of specific muscles

Chronic Pelvic Pain Symptoms

- Pubic or genital pain
- Urinary urgency, frequency
- Dyspareunia
- Anxiousness

Dynamic Muscles are Inhibited

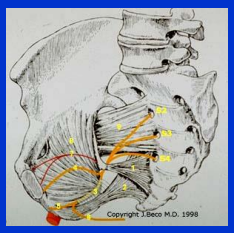
- Inhibited contraction
  - Multifidi
  - Gluteals
  - Rectus Abdominus
  - Transverse Abdominus
  - Long Adductors

Postural Muscles are Facilitated

- Hypertonicity
  - Iliopsoas
  - Quadratus Lumborum
  - Pectineus
  - Piriformis
  - TFL
  - Lateral quad
  - Rectus femoris
  - Hamstring
  - Short adductors
  - **Pelvic Floor**

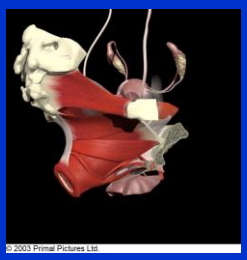
- The pelvic floor, piriformis, gluteus maximus and multifidi are the only muscles that attach to both the sacrum and innominate.

Pelvic Floor is a Major Stabilizer of the Sacroiliac Joint

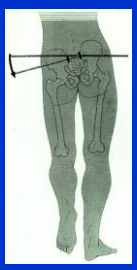


In the Presence of Inflammation or Pain

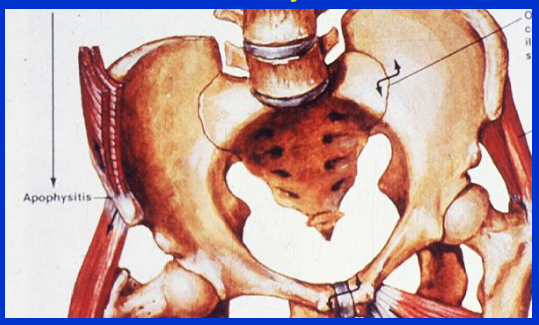
- The pelvic floor is facilitated
- Affects bowl and bladder status
- Affects pudendal nerve as it passes through OI, Levator ani



- Inadequate force closure facilitates joint dysfunction



Muscle Imbalance Facilitates Mechanical Dysfunction



Manual Physical Therapy Treatment for CPP

- Addressing hypo mobility of restricted tissues and joints
- Addressing positional faults of hyper mobile joints
- Soft tissue mobilization of pelvic floor and external urogenital tissue

Therapeutic Exercise

- Targeting the inhibited muscles at the level at which they can fire
- Stretching high tone/facilitated muscles
- Considering ligamentous laxity
- External supports
- Controlling Inflammation
- Down regulating the nervous system

Core Plus More

- Pelvic Floor
- Transversus Abdominis
- Multifidus
- Gluteals

Jane Meijlink

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Affiliations to disclose†:

None

† All financial ties (over the last year) that you may have with any business organisation with respect to the subjects mentioned during your presentation

Funding for speaker to attend:

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W8: Approach to chronic pelvic pain and sexual dysfunction

Patient Perspective

Jane Meijlink
International Painful Bladder Foundation

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- Sexual relationships play an important role in our lives and are the foundation of our very existence.
- Sexual intercourse is a normal part of intimate relationships with partners.
- However, talking to other people about your own intimate sexual experiences – particularly problematic, negative aspects – is extremely difficult and embarrassing, and even in these sexually enlightened times is still enveloped in a Victorian aura of taboo…

Talking about sex is still taboo!

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- Chronic pelvic and urogenital pain conditions, such as bladder pain in IC/BPS/HSB, urethral pain, vulvodynia and endometriosis, can have a disruptive and distressing impact on sexual relationships since penetrative sexual intercourse may be painful for males and females, both during sex and afterwards.
- For some women, it may be totally impossible because the urethra, bladder, vagina and vulva are simply too painful, while in the case of men, ejaculation may cause them intense pain.

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Not just pain…

But I would like to emphasize that it is not only pain that is the issue here, particularly in the case of IC/BPS, where we should not forget the urgency/frequency issue, since a need to rush to the bathroom when things are just getting going is also a big turn-off and may make the patient anxious and nervous, as well as embarrassed by the fear of having to break off halfway due to the overwhelming sensation of needing to empty your bladder.

If this form of intimacy is taken away, cracks may begin to appear in a partnership about which a patient may be very concerned and indeed feel deeply guilty, inadequate, a failure, while the partner may also feel guilty about being the cause of such pain.

Support group helplines, which can be called anonymously, are intensively used by patients who are stressed and even suicidal about failing sexual relationships and above all perhaps the fear of losing their partner because of it, since plenty of partners simply walk away.

It is important for patients to be able to discuss this problem with their partner and for them to try to find solutions together. However, patients do not always find this easy and expert help may be needed in the form of counselling or sex therapy.

But another big problem is that many patients find it difficult or impossible to raise this intimate and for them embarrassing and emotional topic with their doctor. Perhaps even more so if the physician is of the opposite sex.

- It is therefore ultra important for the health provider treating the patient to take the initiative in raising this issue, explicitly asking the patient if there are any sexual problems due to the pain condition and/or the urgency/frequency issue, and if this is the case helping the patient and partner to find expert help and advice.
- This is the first step towards overcoming embarrassment barriers on the path to finding solutions to the sex issue while at the same time reducing the patient's emotional and psychological stress level and probably depression too.
- Just being able to talk about it with a professional may already take a great weight off the mind of the patient.

But we should never forget that every patient is different and there is no "one size fits all" solution. Each patient needs an individually tailored approach since what may help one patient may exacerbate the symptoms in another. And this applies to sexual solutions too.

Clinics treating these patients for their chronic pelvic or urogenital pain/urgency/frequency disorder should therefore ideally have nurses and counsellors trained in sexuality problems specifically for patients with chronic pelvic and urogenital pain and urgency/frequency diseases.

Don't forget that many of the patient support groups now provide excellent information on sexual intimacy issues for patients both online and in the form of leaflets.

References and useful reading:

- *"Secret Suffering: How Women's Sexual and Pelvic Pain Affects Their Relationships". Authors: Susan Bilheimer and Robert J. Echenberg MD. 2009*
- *Interstitial Cystitis/Bladder Pain Syndrome: An overview of Diagnosis & Treatment. Jane M. Meijlink http://www.painful-bladder.org/pdf/Diagnosis&Treatment_IPBF.pdf*
- *Bladder Health UK http://bladderhealthuk.org/*
- *Interstitial Cystitis Association (ICA) https://www.ichelp.org/*

Thank you!

www.painful-bladder.org

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