Chronic Pelvic Pain Syndrome (CPPS) and sexual dysfunctions in ♂

Cobi Reisman
Key Messages

• Chronic pelvic pain impaires sexual functioning
• Sexual problems may lead to chronic pelvic pain
Chronic Pelvic Pain

• Due to a underlying disease
• Not explained by a clear pathophysiological mechanism
Vaginismus

Pelvic pain syndrome

Genital tissue damage (pelvic injury, surgery)

Vulvodynia

In male
- CPPS
- Pelvic floor hypertonia
- Acute prostatitis
- Chronic Prostatitis
- Chronic Scrotal Pain
- Urethra Syndrome
## Common Causes of Chronic Pelvic Pain

<table>
<thead>
<tr>
<th>Gynecologic</th>
<th>Gastrointestinal</th>
<th>Urologic</th>
<th>Musculoskeletal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endometriosis</td>
<td>IBS</td>
<td>Interstitial cystitis</td>
<td><strong>Myofascial pain</strong> (abdominal wall or pelvic floor muscles)</td>
</tr>
<tr>
<td>Pelvic adhesions</td>
<td>IBD (Crohn’s, UC, etc.)</td>
<td>Chronic UTI</td>
<td>Fibromyalgia</td>
</tr>
<tr>
<td>Pelvic congestion</td>
<td>Chronic constipation</td>
<td>Urethral syndrome</td>
<td>Coccygeal or low back pain</td>
</tr>
<tr>
<td>Pelvic inflammatory disease</td>
<td>Colitis</td>
<td>Radiation cystitis</td>
<td>Nerve pain</td>
</tr>
<tr>
<td>Adenomyosis</td>
<td>Diverticulitis</td>
<td>Urinary calculi</td>
<td>Inguinal Hernia</td>
</tr>
<tr>
<td>Vulvodynia</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Uterine myomas</td>
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</tbody>
</table>

Adapted from: Reiter, 1990; Bordman & Jackson, 2006
Different forms of Sexual pain disorders

- Differentiation between CPP and Sexual Pain
- Please differentiate between Dyspareunia and Vaginismus
- In Vaginismus - HANDS OFF !!!!
- In Dyspareunia - Physical examination is often needed (deep dyspareunia)
• Pain is an unpleasant experience
• Pain is always subjective

➢ Pain is an emotional experience resulting in a subjective manifestation.
➢ If a patient reports pain, she/or he has pain!
➢ Pelvic pain is never “between the ears”
Pain

Is not only a stimulus-response reaction to tissue damage

But also a complex interaction of physiological, affective, behavioral, cognitive and socio-cultural variables.
Chronic Pelvic Pain

Key point

- Difficult to diagnose
- Difficult to treat
- Difficult to cure

Frustration for patient and physician
Involvement of pelvic floor

• Enhancement of blood flow
  – ischiocavernous muscle facilitates erection
  – bulbocavernous maintaining the erection (pressing deep dorsal vein)

• Inhibit ejaculation
  – relaxation of the bulbocavernous and ischiocavernous muscles
Involvement of pelvic floor

- Adequate genital arousal & orgasm
  - ischiocavernous muscle attached to the clitoris
- Arousal & orgasm
  - contraction of the levator ani involved

Shafik A. J Pelvic Floor Dysfunct 2000;11:361–76.
The Pelvic Floor as Emotional Organ

FFF (FIGHT, FLIGHT or FREEZE)

Anxiety provoking startles result in reflexogenic contraction of pelvic- and shoulder musculature

(van der Velde, Laan & Everaerd, 2001)
Involuntary pelvic floor EMG in asymptomatic women (N=36)

Pelvic Floor EMG (ΔµV)

-6 -4 -2 0 2 4 6 8

Neutral Anxiety Sex Sexual Threat

30 second epochs

Both, Weijenborg, van Lunsen & Laan, 2012
Measuring pelvic floor EMG and vaginal vasocongestion

Both, Weijenborg, van Lunsen, & Laan, 2012
Simultaneous measuring PF EMG and vaginal vasocongestion

Both, Weijenborg, van Lunsen, & Laan, 2012
High pelvic floor EMG is negatively related to reduced vaginal blood flow as measured with VPA response.
PF of patient with childhood sexual trauma and comorbidity of sexual, genital, bowel and urinary complaints

- Baseline: overactivity
- Persistent tonic/clonic contractions
- Startle (sexually threatening film fragment 10 sec)
Comorbidity of Urological Genital Lower gastro-intestinal & Sexual complaints
Comorbidity

Explanations for comorbidity

- Somatoform disorder (physical complaints with no physiological explanation)
  - Subtypes
    - Somatisation
    - Chronic pain disorder
- PTSD/dissociation
- Pelvic floor hyperactivity
Pelvic floor hyperactivity

- > 3 symptoms of the uro-intestinal-sexual functions
- Clinical evidence of hypertonia
- Comorbidiy in 3 systems:

Van Iunsen RHW. Acta Endoscopica 2002
Hyperactive Pelvic Floor Syndrome

Symptoms in HPFS

- CPP
- IBS/constipation
- Urethra syndrome
- Overactive bladder
- Dyspareunia/VVS
- Vulvodynia
- Perineal pain
- Peri-anal pain (fissures)
- Haemorrhoids
- Sexual arousal disorder
- Orgasmic pain
- Pelvic congestion
- Coccygodynia
- Low-back pain
- Hyperventilation
Hyperactive Pelvic Floor Syndrome

Symptoms in HPFS

- CPP
- IBS/constipation
- Urethra syndrome
- Prostatodynia
- Sexual dysfunction (ED, PE, RE, Adhonic)
- Orchialgia (scrotal pain)
- Ejaculatory pain
- Perineal pain
- Peri-anal pain
- Haemorrhoids
- Coccygodynia
- Low-back pain
- Hyperventilation
Causes of HPFS

- Trauma
- Psychological make-up: perfectionism, anxiety, extrem locus of control,
- Toilet training
- Overtraining: post partum, fitness
- Pre-existing disease: incontinence, colitis, lower back pain
Causes

Pelvic floor hypertonia

CPPS

Psychological factors (fear, stress, pain behaviour, PTSS)

Pain
Effect of Chronic Pain

- Change in self esteem
- Change in relationships
- Change in ability to enjoy (sexual expression requires physical abilities)
- Hinder ability to move freely

Factors contributing for SD in CPPS

- Comorbidity with depression
- Use of medication (antidepressant, pain killers)
- Relationship issues
- Increase rates of past sexual abuse
- CPPS involve areas directly connected to sexuality
- Negative body-image

Smith KB, J Sex Med 2007;4:734–44.;
CPP in men

- Men who report having experienced sexual, physical, or emotional abuse have increased odds (1.7–3.3) for symptoms suggestive of CPP
- Comorbidity of CPP and SD 30-60%
- “Chronic Abacterial Prostatitis” is a form of otherwise unexplained pelvic pain
SD in CPPS

- **Male:**
  - PE
  - ED
  - Decreased libido

- **Women:**
  - Decreased libido
  - Dyspareunia
  - Anorgasmia

Different form Sexual pain disorders
CPPS and SD in males

- Considerable morbidity:
  - LUTS,
  - Intestinal
  - Sexual
  - High incidence of depression
  - Explore possibility of abuse

- Incidence of SD in CPPS 49-73%

- Evaluation: NIH-CPSI + IIEF

- High incidence of sexual relationship dissolution

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<thead>
<tr>
<th>Author</th>
<th>Number of participants</th>
<th>ED(%) in CP/CPPS</th>
<th>EjD(%) in CP/CPPS</th>
<th>% Sexual dysfunction</th>
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<td>Anderson et al</td>
<td>146</td>
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<td>56</td>
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Reisman Y. EAU guideline 2012
CPPS and SD in Females

- Pain leading to fatigue and depression
- Changing in sexuality:
  - Decreased pleasure
  - Deficient lubrication
  - Anorgasmia
  - Sexual aversion
  - Lack of intimacy
  - Lower scores in all sexual function domains
- Incidence 29-73%
- Evaluation with FSFI
- High incidence of abuse

A. Who have you consulted about your current medical complaint? What did they tell you?

B. How are you currently coping with your pain?

C. Do you have any history of a major episode of depression?

D. Do you feel you are experiencing symptoms of depression?

Check those that apply:

- Mood disturbances
- Feelings of hopelessness
- Low energy
- Sleep disturbance
- Loss of pleasure in activities
- Feelings of worthlessness
- Loss of appetite
- Thoughts or plans of suicide
E. Has anyone ever abused you sexually? (40% vs 17%) If yes, at what age? By whom?

F. Has anyone ever touched you in any way that made you feel uncomfortable? If yes, at what age? By Whom?

G. Has anyone ever asked you to touch them when you did not want to? If yes, at what age? By whom?
Possible symptoms

- Penile, perineal, lower back, abdominal and inner thigh pain
- Painful and/or premature ejaculation
- Lower urinary tract symptoms
- Fever
- Myalgia
- Decreased sexual motivation
- Erectile dysfunction
- Diagnosis is based on a 3-month history of genitourinary pain and an absence of other lower urinary tract pathologies
Possible physical signs

• Pyrexia
• Abdominal tenderness
• Abnormality of prostate gland
  – Variably tender
  – Possibly enlarged
  – Possibly irregular
• ...or none!
Prostatitis/CPPS and SD

- Key feature of CP/CPPS is pain.
- Chronic pain and its treatment can impair our ability to express sexuality.
  - In a study in England
  - 73% of patients with chronic pain had some degree of sexual problems as result of the pain
- Cause of SD:
  - Psychological factors like decrease in self-esteem, depression and anxiety can contribute to loss of libido.
  - Physiological factors like fatigue, nausea and pain itself can cause of sexual dysfunction.
  - Pain medications (opioids, SSRI) can also cause decrease
CPPS and ED

• 1,765 men (mean age 46.3 years, range 20-79 years)
  – NIH-CPSI score in the upper quartile was associated with 8.3-fold increased risk of having ED

• 2000 men with chronic prostatitis (NIH-CPSI) selected from hospital clinic in China

• Cross-sectional survey of 2500 men (aged 20-59)
  • Erectile dysfunction: 43%
  • Decreased libido: 24%

<table>
<thead>
<tr>
<th>SD</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>49</td>
</tr>
<tr>
<td>PE</td>
<td>26</td>
</tr>
<tr>
<td>ED</td>
<td>15</td>
</tr>
<tr>
<td>PE &amp; ED</td>
<td>7.7</td>
</tr>
</tbody>
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Marszalek M. J Urol. 2007; Liang CZ. BJU Int. 2004; Mehik A. BJU Int. 2001
Prevalence of PE in men with “prostatitis”

<table>
<thead>
<tr>
<th>Study</th>
<th>n</th>
<th>PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonen M et al (2005)</td>
<td>66</td>
<td>77%</td>
</tr>
<tr>
<td>Qui Y et al (2007)</td>
<td>623</td>
<td>39%</td>
</tr>
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## Prevalence of “prostatitis” in men with PE

<table>
<thead>
<tr>
<th>Report</th>
<th>N</th>
<th>“Prostatitis”</th>
</tr>
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<tbody>
<tr>
<td>Screponi et al (2001)</td>
<td>46</td>
<td>48-56%</td>
</tr>
<tr>
<td>Xing et al (2003)</td>
<td>106</td>
<td>40-46%</td>
</tr>
<tr>
<td>Basile-Fasolo et al (2005)</td>
<td>2658</td>
<td>15%</td>
</tr>
<tr>
<td>Shamloul et al (2006)</td>
<td>153</td>
<td>52-64%</td>
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The percentage of sexual dysfunctions in men with CP/CPPS is summarised in the table below:

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The presence of pelvic pain may increase the risk for erectile dysfunction independently of age.
NIH-Chronic Prostatitis Symptom Index

Pain or Discomfort

1. In the last week, have you experienced any pain or discomfort in the following areas?

   a. Area between rectum and testicles (perineum) Yes No
   b. Testicles
   c. Tip of the penis (not related to urination)
   d. Below your waist, in your pubic or bladder area

2. In the last week, have you experienced:

   a. Pain or burning during urination?
   b. Pain or discomfort during or after sexual climax (ejaculation)?

3. How often have you had pain or discomfort in any of these areas over the last week?
   - 0 Never
   - 1 Rarely
   - 2 Sometimes
   - 3 Often
   - 4 Usually
   - 5 Always

4. Which number best describes your AVERAGE pain or discomfort on the days that you had it, over the last week?
   - 0 NO
   - 1 BAD AS
   - 2 YOU CAN IMAGINE

      PAIN AS
      1 2 3 4 5 6 7 8 9 10

Urination

5. How often have you had a sensation of not emptying your bladder completely after you finished urinating, over the last week?
   - 0 Not at all
   - 1 Less than 1 time in 5
   - 2 Less than half the time
   - 3 About half the time
   - 4 More than half the time
   - 5 Almost always

6. How often have you had to urinate again less than two hours after you finished urinating, over the last week?
   - 0 Not at all
   - 1 Less than 1 time in 5
   - 2 Less than half the time
   - 3 About half the time
   - 4 More than half the time
   - 5 Almost always

Impact of Symptoms

7. How much have your symptoms kept you from doing the kinds of things you would usually do, over the last week?
   - 0 None
   - 1 Only a little
   - 2 Some
   - 3 A lot

8. How much did you think about your symptoms, over the last week?
   - 0 None
   - 1 Only a little
   - 2 Some
   - 3 A lot

Quality of Life

9. If you were to spend the rest of your life with your symptoms just the way they have been during the last week, how would you feel about that?
   - 0 Delighted
   - 1 Pleased
   - 2 Mostly satisfied
   - 3 Mixed (about equally satisfied and dissatisfied)
   - 4 Mostly dissatisfied
   - 5 Unhappy
   - 6 Terrible

Scoring the NIH-Chronic Prostatitis Symptom Index Domains

Pain: Total of items 1a, 1b, 1c, 1d, 2a, 2b, 3, and 4 =

Urinary Symptoms: Total of items 5 and 6 =

Quality of Life Impact: Total of items 7, 8, and 9 =
Localization tests: 2-Glass Test

The 2-Glass Test is a simple, reliable and cost-effective alternative to the 4-Glass Test

- Pre-massage midstream urine sample (bladder specimen; 4-glass VB2 sample)
- Post-massage urine sample: first 10 ml of urine after prostatic massage (prostate specimen; 4-glass VB3 sample)

Results correlate well with those of 4-Glass test
## Interpretation of PPMT

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Pre-M urine culture</th>
<th>Post-M urine culture</th>
<th>WBC in Post-M sediment microscopy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type II</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Type IIIa</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Type IIIb</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cystitis (+/- type II)</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
History Taking

- Timing of pain
  - Constant?
  - Associated with eating?
  - Associated with intercourse?
  - Associated with stress?
History Taking

- Medical history (includes STDs)
- Surgical history
- Sexual history (current practices, history of abuse, etc.)
- Psychological history (depression, anxiety, abuse history)
Absence of Warning Symptoms

- Weight loss
- Anemia
- Rectal bleeding
- Fever
- Onset after age 50
- Abrupt change in symptoms
- Family history of colon cancer
Diagnosis and treatment

The unknown etiology of CPPS/CP means treatment is often anecdotal. Most patients require multimodal treatment aimed at the main symptoms and considering comorbidities.
Treatment of CPPS: Evidence-based?

• Most “well-designed” trials evaluating antibiotics, anti-inflammatory agents, α-blockers, finasteride, pentosan polysulfate, and gabapentinoids have been considered negative studies.

• 3 NIH, randomized placebo-controlled trials evaluating ciprofloxacin/tamsulosin, alfuzosin, and pregabalin were negative in regard to the a priori primary outcome.

• None of the standard therapies appears to be more effective than placebo.

Therapies used in Type III

- “Appropriate” antibiotics
- NSAIDs and COX-2 inhibitor anti-inflammatories
- Alpha-blockers
- Antidepressants
- Regular prostatic massage
- 5-alpha reductase inhibitors

- Phytotherapy
- Pentosanpolysulphate (Elmiron)
- Allopurinol
- PDE$_5$-inhibitors
- Trigger-point release
- Relaxation training
- Thermotherapy
- Prostatic resection
Clinical Phenotyping of CP/CPPS

The UPOINT classification:

- Urinary
- Psychosocial
- Organ-specific
- Infection
- Neurologic/systemic
- Tenderness

- What about SEX?

Drugs for symptom relief

- **Anti-inflammatories**
  - e.g. Rofecoxib, slow-release Diclofenac 75mg bd
- **Alpha-blockers**
  - e.g. slow-release Tamsulosin SR 400mcg
- **Antidepressants**¹
  - e.g. Amitriptyline 25mg od
- **Pain perception-modifying drugs**¹
  - e.g. Gabapentin, pregabalin

¹ Described in literature but no RCT evidence of efficacy in men
Painful ejaculation and drugs*

Painful ejaculation has been reported in association with:

- tricyclic antidepressants (e.g. clomipramine, imipramine, desipramine, protriptyline, amoxapine)
- selective serotonin reuptake inhibitors (e.g. fluoxetine)
- NARI (reboxetine)
- MAOIs
Painful ejaculation and drugs

Management strategies

• Reduce the dose of drug
• Change the antidepressant
• Specific antidote ($a_{1a}$-blocker, tamsulosin)

The evidence for utility of these approaches has to be described as very poor

Demyttenaere, K. J Eur Neuropsychopharmacol 2002
• General Examination: Gait- Musculoskeletal
• Check Abdominal Wall – Point trigger, Ovarian point tenderness
• DRE

• Inspection of Vulva & introitus- Vestibulitis
• Q-tip test for vestibulitis
• Check for Pelvic Floor Myalgia
• Single Digit Pelvic Exam
• Rectal exam
Approach to CPPS

- Education and information (address impact on sexuality)
- Symptomatic (diet, medication, warmth)
  - Analgetics
  - Anxiolytics and SSRI
  - Gabapentin
- Physical therapy (biofeedback)
- Behavioural therapy, coping strategy, lifestyle change
- Relation therapy
- EMDR
- Urologist; Gynaecologist; Sexologist; Psychologist; Physical therapist
Mind and body

“The chronic pelvic pain syndromes begin with a person’s habit of focusing tension in the muscles of the pelvis. This tendency sets the stage for the disorder. What triggers the symptoms can be a major stress or several minor stresses occurring simultaneously. The stressors can be psychological or physical.”

Summary

- Establish a relationship of trust
  - Let you patient know that you believe them!
- Perform diagnostic work-up to identify an underlying cause or to categorise
  - Education
  - Behavioural modification
- Offer therapeutic intervention and support
  - Tailor multi-modal therapy to individual needs
  - May require skills of urologist, psychologist, psychotherapist and physiotherapist