Chronic Pelvic Pain in Women of Reproductive Age

Justin C Konje
Sidra Medical and Research Center, Doha
Weill Cornell Medical College - Qatar
DISCLOSURE

I do not have any relevant financial or commercial interest to disclose.
Outline of Presentation

• Pain as a symptom – characteristics
• Chronic pelvic pain – definition, prevalence & Management
• Aetiology/Differential diagnoses
• Investigations
• Management of common (specific - gynaecology) causes of CPP
• Conclusion
What is Pain?

“AN UNPLEASANT SENSORY AND EMOTIONAL EXPERIENCE ASSOCIATED WITH ACTUAL OR POTENTIAL TISSUE DAMAGE”*

* International association for the study of pain

It is the most common symptom of any illness; Clinicians need to:
• Identify and treat the **cause**
• But may sometimes have to treat the symptom (**pain**)  
  • whether or not the underlying cause is treatable.
Two types of Pain

- **Nociceptive** - associated with tissue damage or inflammation, often referred to as ‘inflammatory pain’.

- **Non-nociceptive pain** resulting commonly from injury to the peripheral or central nervous systems.
Different Types of Pain

<table>
<thead>
<tr>
<th>Nociceptive Pain (from pain-sensitive structure):</th>
<th>Non-nociceptive Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Somatic origin</td>
<td>• Neuropathic</td>
</tr>
<tr>
<td>• Visceral origin</td>
<td>• Psychogenic</td>
</tr>
</tbody>
</table>
Types of Pain

- **Nociceptive pain:**
  - Related to activation of primary afferent neurons in response to noxious stimuli (e.g. tissue injury)
  - Level of pain consistent with the degree of tissue injury
- **Subtypes**
  - **Somatic:** well localized and described as sharp, aching, throbbing
  - **Visceral:** more diffuse and described as gnawing or cramping
Nociceptive - Visceral Pain

Visceral pain
- Sympathetic autonomic nervous system fibres

Behaviour
- Poorly localised, dull or crampy

Autonomic phenomenon
- Nausea
- Vomiting
- Sweating
- Strong emotional reactions
Types of Pain

Non-nociceptive pain

• Neuropathic pain
  • Pain believed to be sustained by aberrant somatosensory processing in the peripheral or central nervous system (e.g. nerve injury)

• Psychogenic pain
  • Pain sustained from psychological factors
  • More precisely characterized in psychiatric terminology
  • Sufferers have affective and behavioral disturbances
  • Those with an organic component often have concurrent psychological contributions and co-morbidities
Nociceptive - Somatic

Skin, muscles, bones, joints

Transmitted along sensory fibres

Sharp or dull, usually discrete
Non-nociceptive - Neuropathic Pain

Neuropathic Pain

CNS or peripheral nerve insult

Pain characteristics

Burning

Lancinating

Parasthesia
Non-nociceptive - Psychogenic Pain

- No identified mechanism
- Diagnosis of exclusion
- Psychogenic factors
  - Pre-morbid personality
  - Depression
  - Behavioural disturbances

Have effect on pain experience
Factors Influencing Perception of Pain

- Emotional state
- Auditory cues
- Visual perception
- Age
- Reproductive history
- Job satisfaction
- Sexual history – especially dysfunction
- Past/current - psychological/physical/sexual abuse
- Family status
- Culture
Principles of Pain Management

• Believe the Patient and show her – gain confidence
• Have Realistic Goals – develop this with the patient
• Institute Adequate Pain Relief
• Identify All Pain Generators
• Setup Appropriate Diagnostic Studies
• Explain the Reasons for Complexity
The cycle of failed pain treatment

- Expectation of treatment
- Failed treatment
- Painful symptoms
- Investigations
What is Chronic Pelvic Pain (CPP)?

Cyclical or non cyclical pain in the lower abdomen or pelvis, of at least six months duration, occurring continuously or intermittently, that causes functional disability or limits activities of daily living i.e. interfere with QOL

CPP a condition that may cause frustration

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

Frustration for patient and physician
Chronic Pelvic Pain (CPP)

Epidemiology
Demographics

- Age, race, ethnicity, education, and socioeconomic status do not differ between those with and without CPP.
- Higher incidence in single, separated or divorced women.
- 40-50% of women (in the West) have a history of abuse (emotional, sexual or physical).
How Common is CPP?

- Affects 15-20% of women of reproductive age
- Accounts for
  - 20% of all laparoscopies
  - 12-18% of all hysterectomies
- Associated medical costs of > $3 billion annually (in the USA)
Prevalence Comparable to Other Common Medical Problems (UK Data)

Cross-sectional analysis by UK Mediplus Primary Care database.

CPP is a Significant and Common Disorder in Women

- **Magnitude of CPP**
  - >9 million women in the United States affected\(^1\)
  - 20% had pelvic pain >1 year in duration\(^2\)

- **CPP accounts for**
  - 10% of referrals for OB/Gyn visits\(^3\)
  - **Over 20% of laparoscopies**\(^4\)
  - 12 - 18 % of hysterectomies\(^5\)

- Patients with CPP have significantly lower general health scores compared with patients without CPP\(^1\)

Medical costs for CPP

• Direct **outpatient medical costs** for CPP:
  • Total annual direct costs > $3.0 billion/year\(^1\)

• 15% of women with CPP missed >1 hr paid work/month\(^1\)
  • **Cost of work time lost** for CPP >$555.3 million/year

Predisposing factors to CPP

- Drug and alcohol abuse
- Miscarriage
- Heavy periods
- Previous caesarean section
- Pelvic pathology
- Abuse (physical, emotional and sexual)
- Psychological co-morbidities e.g. Sleep disturbance, fatigue
- Etc.
Aetiology – Multifactorial

Gastrointestinal

Psychological

Urological

Gynecological

Musculoskeletal
Aetiology of CPP : Gynaecological

- **Pelvis**
  - Pelvic adhesions
  - Endometriosis (17-72%)
  - Pelvic congestion syndrome
  - Neoplasms (fibroid or malignant)
  - Tuberculous salpingitis

- **Ovary**
  - Benign cysts
  - PCOD
  - Ovarian remnant syndrome
  - Periovarian adhesions

- **Uterine**
  - Dysmenorrhea (congestive and spasmodic)
  - IUCD
  - Uterovaginal prolapse
  - Endometrial or cervical polyp
  - Adenomyosis
  - Chronic endometritis

- **Others**
  - Vulvodynia
  - Sciatic hernia
  - Post sterilisation tubal torsion
Aetiology of CPP: Non-gynaecological

- **GIT**
  - IBS
  - Inflammatory Bowel disease (Crohn’s, ulcerative colitis, diverticulitis)
  - Hernias

- **GUS**
  - UTI
  - Urethral obstruction
  - Calculus
  - Diverticulitis
  - Malignancy
  - Interstitial cystitis

- **CNS**
  - Nerve entrapment syndrome
  - Neuroma/ pudendal neuralgia
  - Piriformis syndrome
  - Post herpetic neuralgia

- **Musculoskeletal**
  - Prolated disc
  - Degenerative spinal disease
  - Faulty or poor posture
  - Myofascial pain syndrome
  - Pelvic floor dysfunction

- **Psychogenic**
  - Sexual victimisation
  - Drug abuse
  - Major depression

- **Idiopathic**
Data from the United Kingdom Primary Care

<table>
<thead>
<tr>
<th>Diagnosis Distribution</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastrointestinal</td>
<td>37.7%</td>
</tr>
<tr>
<td>Urinary</td>
<td>30.8%</td>
</tr>
<tr>
<td>Gynecological</td>
<td>20.2%</td>
</tr>
</tbody>
</table>

- 25-50% of women had more than one diagnosis
- Severity and consistency of pain increased with multisystem symptoms
- Most common diagnoses:
  - endometriosis
  - adhesive disease
  - irritable bowel syndrome
  - interstitial cystitis

Cross-sectional analysis by UK Mediplus Primary Care database.
Management of Patients Presenting with CPP
Composite relationships in CPP

- Socio-environmental factors
  - Genetic
  - Psychological & behavioural reactions
  - Personality
    - Organic factors
      - Psychiatrist Disorders
      - Socio-environmental factors
    - Pathology
      - Chronic pelvic pain
      - Affective Disorder
  - Socio-environmental
    - Personality

Physical vs. Psychological

100% Physical

100% Psychological
Systematic evaluation of the pain involves the following:

• Take a **detailed history** of the pain including an assessment of the pain intensity and character

• Evaluate the **psychological state** of the patient, including an assessment of mood and coping responses

• Perform a **physical examination** with emphasizes on bimanual pelvic examination

• Appropriate **diagnostic workup** to determine the cause of the pain which may include tumour markers, radiologic studies, scans etc.

• **Targeted/customized** therapy.
Quantification of Pain

- Always try to quantify pain
  
  - **Different rating scales** available.
    
    - **Categorical scales** e.g., verbal rating scales: mild, moderate, severe pain
    
    - **Visual analogue scale (VAS)**
    
    - **Complex pain assessment**
      
      - Brief Pain Inventory (BPI),
      
      - McGill Pain Questionnaire.

- These rely on the **subjective assessment** of pain by the patient and therefore make inter-individual comparisons difficult.

- Do not forget that pain is a multidimensional complex phenomenon and is **not** adequately described by **unidimensional scales**
The initial evaluation of pain should include a description of pain using PQRST criteria

- **P:** Palliative or provocotive factors, ‘What makes it better or worse?’
- **Q:** Quality; ”What is it like?”
- **R:** Radiation; “Does it radiate anywhere?”
- **S:** Severity; “How severe is it?”
- **T:** Temporal factors; (Is it there all the time or it does come and go and how it related your periods?”
Pain

• Assessment of pain
  • Location (mapping)
  • Timing & frequency characteristics
  • Provocative & palliative factors
  • Chronology and relationship to the menstrual cycle
  • Emotional response and reaction of family & friends
  • Psychological characteristics
Evaluation of CPP

History – effective leads to alleviation of symptom in 50% of cases

- Listen, be sympathetic & show understanding
- Thought derailment, body language
- Childhood, parental & sexual experiences
- Organic causes: Vaginal discharge & PID
- Previous treatment profile (medical & surgical results)
- Psychiatric disturbances/depression/attempted suicide
- Relationship to diet, GIT etc
- Social & cultural belief of patient pain
Psychological Co-Morbidity Assessment

• Clinical
  • Enquiry about things at home
  • Sleep pattern
  • Appetite disturbance
  • Tearfulness

• Validated symptom based tools
  • HAD (Hospital and anxiety Depression) Score
  • SF-36
  • McGill questionnaire
  • Quality-adjusted life years (QUALYs) score
Physical Examination

• General condition
  • Attention to posture, gait, facial grimacing & overall general countenance
  • Exclude malignancy
  • ‘Trigger point’ and neurological exam.
  • Palpable (tender colon)

Pain mapping: illio-inguinal & genito-femoral nerves

• Psychological assessment: McGill pain & Middlesex Hospital questionnaires, SF-36 & HAD score
Pelvic examination

- Inspection
  - Lesion & point tenderness
  - Vulva, vestibule, urethra
- Pain + absence of physical changes = probably vulvodynia
Digital

• One finger
  • Assess Pelvic floor Muscles
  • Vaginismus - painful spasms of the pelvic floor muscles (levator ani, obturator, pubococcygeus, deep & superficial perineal muscles)
  • Palpate the vagina anteriorly & the base of bladder trigone (exquisitely tender ?bladder pain syndrome or IC)

• Bimanual & RV septum exam:
  • Uterine & adnexal tenderness, masses
Investigations

- USS
  - Endometrioma, hydrosalpinges, Adnexal masses
- Laparoscopy
  - Confirm endometriosis is 70-80% of women with CPP
  - Pain mapping
- Psychological/metric assessment
  - McGill's, SF-36, HAD, Middlesex Hospital Questionnaire (Justification/why?)
- Local injection trials
  - Trigger point injections
- Bladder investigation
  - MSU, Voiding diary, Urine makers (Antiproliferative factor)
  - Cystoscopy: Bladder glomerulation (petechial submucosal bladder hemorrhage), Hunner’s ulcer, decreased cystometric compliance
  - KCl sensitivity test (Parsons test: IC)
- Hormone suppression test (GnRH-a)
CPP and laparoscopy

- 40% of laparoscopies performed by gynaecologists are for CPP
- No visible pathology is identified in 35% of women
- Endometriosis is detected in 33%
- Adhesions are detected in 24%
- Pelvic congestion in about 31%

Treatment of CPP

Multidisciplinary

• Nurses and Family Practitioners
• Gynaecologists
• Health psychologists
• Pain clinicians (anaesthetist)
• Physiotherapists
• Psychiatrists
Management approach of chronic pain

Education
(integral part of all professional training)

Collaboration
(Stakeholders)

Empowerment
(support for people to make decisions)

Early Access
(prevent acute becoming Chronic)

Measurement
(Success of treatment)

Chronic Pain Policy Coalition (2006)
Treatment options

• Non invasive therapy

• Pharmacologic management
  • Analgesic
  • Adjuvants
  • Disease specific medications
  • Hormonal manipulations

• Invasive therapies
  • Injections
  • Surgical procedures
Non-invasive therapy

- Exercise programme
- Cognitive/behavioural therapy
- Physical therapy (70% improvement)
- Nutrition: Dietary modifications; caffeine, & alcohol trigger IC & IBS
- Massage
- Acupuncture
Pharmacological agents: Analgesics & Adjuvants

• Analgesics
  • Non opioid: NSAID alone
  • NSAID + mild Opioids: e.g. tramadol, codeine
  • Opioids: morphine, methadone (long half life)
    • Side effects: tolerance, dependence, addiction, respiratory depression

• Regular frequent assessment for continued therapy

• Adjuvants
  • Tricyclic antidepressants e.g. Venlafaxine in neuropathic conditions or IC in the USA but not in UK
  • Anticonvulsants (neuropathic pain): Gabapentin, lamotrigine,
  • Muscle relaxants: (pelvic floor dysfunction) Tizanidine
Pharmacological agents: Hormonal manipulation

- Menstrual suppression of cyclic component to pain
  - COC
  - POP
  - GnRH-a

3-6 months trial

- Endometriosis
- IC
- Pelvic congestion
- Ovulatory dysfunction

Improvement
Invasive therapy

• Injections: Myofacial pain / Trigger point in the abdominal wall
  • Bupivacaine
  • Botulinum toxin A (temporary muscle paralysis due to mediators in neurogenic inflammation
  • Uses: Myofascial pain, IC, Overactive bladder (bladder muscle injection)

• Nerve blocks: Pudendal & Genitofemoral & illioinguinal
Surgery: Specific

- Neuroablative procedures for IC through S3 nerve root
- Laparoscopic surgery
- Hysterectomy
  - Failure to relief pain associated with
    - Lack of pelvic pathology
    - Age less than 30 years
    - Depression
    - Psychologic problem

Flowchart for the suggested management of chronic pelvic pain

- Allow the patient to tell her story
- Directed questions
- Vaginal examination
- Identify any specific aims/fears

- Recent change of partner
- Symptoms suggestive of pelvic inflammatory disease
- Concerns about sexually transmitted infection (STI)

STI screen

Abnormal findings on vaginal examination

Yes

Consider diagnostic laparoscopy or ultrasound scan

Markedly cyclical pain with dysmenorrhoea

Pain varies with movement

Symptoms suggestive of irritable bowel syndrome

Urgenital symptoms or other bowel symptoms

Marked psychological component

No

Wanting to conceive?

Yes

No

Trial of combined oral contraceptive or GnRH-A ± analgesia

Consider injection of local anaesthetic

Referral to physiotherapy or osteopathy

High-fibre diet ± mebeverine ± exclusion diet

Referral to urology or gastroenterology ± analgesia

Refer to specialist if appropriate

? nerve entrapment

? musculoskeletal

Start analgesia
Dysmenorrhoea
Dysmenorrhoea

Pain in association with menstruation may be primary or secondary.

- **Primary dysmenorrhoea** classically commences with the onset of ovulatory menstrual cycles and tends to decrease following childbirth.

- **Secondary dysmenorrhoea** – occurs classically sometime after the onset of menstruation (occasionally with menstruation).

- Associated with a pelvic pathology.
Primary Dysmenorrhoea

- **Description:** Pain associated with menses; onset 1-3 days prior to the onset of menses; last 1-3 days

- **Risk Factors:** Nulliparity, Young Age, Heavy menstrual Flow, Cigarette Smoking

- **Symptoms:** Crampy lower abdominal pain; +/- nausea, emesis, diarrhoea or headache, normal physical exam

- **Treatment:** NSAIDS, B6, B1, Hormonal Therapy (OCPs, OrthoEvra, Nuvaring, Mirena IUS, Depo-Provera)
Dysmenorrhoea

• **Primary dysmenorrhoea**
  - **Suppression of ovulation** using the oral contraceptive pill reduces dysmenorrhoea dramatically in most cases.
  - Because of the chronic nature of the condition, potentially addictive analgesics should be avoided.
    - **Explanation** and reassurance may be helpful,
    - together with the use of simple analgesics progressing to the use of non-steroidal anti-inflammatory drugs (NSAIDs), which are particularly helpful if they are started before the onset of menstruation.

• **Secondary dysmenorrhoea** - suggest the development of a pathological process, and the exclusion of endometriosis and pelvic infection is essential
  - Treatment depends on the cause
Endometriosis (pelvic)

Definition

The presence of endometrial glands and stroma (functional endometrium) outside the uterine cavity.
Endometriosis – different phenotypes
Endometriosis – different phenotypes
Endometriosis - Prevalence

- Occurs typically in women age 25 -35 years
- Diagnosed in approximately 45% of women undergoing laparoscopy for any indication
- Diagnosed in approximately 30% of women undergoing laparoscopy with primary complaint of chronic pelvic pain
- Found in 38% of women with infertility
- Family history increases risk seven to ten-fold
- Significant cause of morbidity
## Endometriosis: Signs and Symptoms

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dysmenorrhea</td>
<td>Visible lesions on cervix or vagina</td>
</tr>
<tr>
<td>Dyspareunia</td>
<td>Tender nodules in the cul-de-sac, uterosacral ligaments or rectovaginal septum</td>
</tr>
<tr>
<td>Infertility</td>
<td>Pain with uterine movement</td>
</tr>
<tr>
<td>Intermenstrual Spotting</td>
<td>Tender adnexal masses (endometriomas)</td>
</tr>
<tr>
<td>Painful Defaecation</td>
<td>Fixation (retroversion) of uterus</td>
</tr>
<tr>
<td>Pelvic Heaviness</td>
<td>Rectal mass</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>Normal findings</td>
</tr>
</tbody>
</table>
Endometriosis

• Affects 2-10% of reproductive age group (Barbieri et al 1990)

• Occurs in 20-40% if infertile population (Mahmood & Templeton 1991)

• Mean symptom diagnosis interval:
  • UK 8 years
  • USA 11.7 years

Endometriosis - Diagnosis

- Diagnosis can be made on clinical history and exam
- Serum CA125 may be elevated but lacks sufficient specificity and sensitivity to be useful
- Imaging studies lack sufficient resolution to detect small endometrial implants
- Laparoscopy is gold standard for diagnosis
  - Multiple appearances: red, brown, scar, white, powder burn, adhesions, defects in peritoneum, endometriomas
  - Allows diagnosis and treatment
Factors affecting treatment

• Age
• Symptoms
• Reproductive status
• Fertility demands
Treatment

• Medical
• Surgical
• Psychotherapy
• Combination
Endometriosis - Medical Treatment

- NSAIDS for mild disease

**First Line:** Oral contraceptives
  - Suppress ovulation and menstruation
  - Cyclical or continuous
  - Improves symptoms in up to 80%
  - Progestogens (oral or Levonorgestrel IUS – Mirena)

**Second Line:** GnRH agonists e.g. Lupron Depot (x 6-12 months)
  - Improves symptoms in up to 80%
  - Side effects: hot flashes, vaginal dryness, insomnia, bone loss, irritability
  - “Add back” therapy – Livial or combined HRT
Surgery

- Laparoscopic
- Laparotomy
- Robotic
Surgery

Laparoscopic

- Ablation of endometriosis
  - Diathermy
  - Laser vaporization
- Excision
- Ovarian cystectomy ± Adhesiolysis: severe
- ?Presacral neurectomy

Mild to moderate
Endometriosis: Surgical Treatment

- **Laparoscopic Removal or Destruction**
  - Treatment at time of diagnosis
  - Used in conjunction with medical treatment
  - Improves pain in up to 70% of patients

- **Laparotomy (TAH/BSO)**
  - Inadequate response to medical treatment or conservative surgical treatment with no desire for future fertility
  - May preserve ovaries in young women, but 30% with recurrent symptoms

- **Laparoscopic Uterosacral Nerve Ablation (LUNA), Presacral neurectomy**
  - Involves transecting the nerve plexus at the base of the cervical-uterosacral ligament junction
Pelvic Infections (PID)
Pelvic Infections (PID)

• Caused typically by *Chlamydia trachomatis* and *Neisseria gonorrhoea*, as well as vaginal and genital tract pathogens.

• Patient’s **sexual contacts** will need to be traced in all cases with positive cultures. If there is doubt about the diagnosis then **laparoscopy** may be of great assistance.

• **The treatment** of infection depends on **the causative organisms**.
pelvic infections (PID)

- **Subclinical Chlamydia trachomatis** infection may lead to tubal pathology. Screening for this organism in sexually active young women may reduce the incidence of subsequent subfertility.
Pelvic Infections (PID)

- **Risk Factors**
  - Multiple sexual partners
  - Greater than 2 sexual partners in past 4 weeks
  - New partner in the past 4 weeks
  - Prior history of PID
  - Prior history of gonorrhea or chlamydia
  - Smoking
  - None or inconsistent condom use
Pelvic Infections (PID)

- **Treatment**: Depends on the organism common in the environment and its sensitivity. Multiple inpatient or outpatient antibiotic regimens; total therapy for up to 14 days

- **Sequelae**
  - Infertility
  - Ectopic Pregnancy
  - **Chronic Pelvic Pain**
    - Occurs in 18-35% of women who develop PID
    - May be due to inflammatory process with development of pelvic adhesions
Pelvic Congestion Syndrome

- **Description:** Retrograde flow through incompetent valves venous valves causing tortuous and congested pelvic and ovarian varicosities; aetiology unknown.
- Worse in women with migraine (pelvic migraine)
- **Symptoms:** Pelvic ache or heaviness that may worsen premenstrually, after prolonged sitting or standing, or following intercourse
- **Diagnosis:** CT, MRI, ultrasound, laparoscopy Pelvic venography (historic)
- **Treatment:** Progestogens, GnRH agonists, ovarian vein embolization or ligation, and hysterectomy with bilateral salpingooophorectomy (BSO)
Pelvic Floor Pain Syndrome

- **Description:** Spasm and strain of pelvic floor muscles
  - Levator Ani Muscles
  - Coccygeus Muscle
  - Piriformis Muscle

- **Symptoms:** Chronic pelvic pain symptoms; pain in buttocks and down back of leg, dyspareunia

- **Treatment:** Biofeedback, Pelvic Floor Physical Therapy, TENS (Transcutaneous Electrical Nerve Stimulation) units, anxiolytic therapy, cooperation from sexual partner
### Differential Diagnosis: Urological Conditions that may Cause or Exacerbate Chronic Pelvic Pain

<table>
<thead>
<tr>
<th>Level A</th>
<th>Level B</th>
<th>Level C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bladder Carcinoma</td>
<td>Detrusor Dyssynergia</td>
<td>Chronic Urinary Tract Infection</td>
</tr>
<tr>
<td>Interstitial Cystitis/Painful bladder syndrome</td>
<td>Urethral Diverticulum</td>
<td>Recurrent Acute Cystitis</td>
</tr>
<tr>
<td>Radiation Cystitis</td>
<td></td>
<td>Recurrent Acute Urethritis</td>
</tr>
<tr>
<td>Urethral Syndrome</td>
<td></td>
<td>Stone/uroolithiasis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urethral Caruncle</td>
</tr>
</tbody>
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Source: ACOG Practice Bulletin #51, March 2004
Painful Bladder syndrome

- **Description:** Chronic painful condition of the bladder

- **Etiology:** Loss of mucosal surface protection of the bladder and thereby increased bladder permeability

- **Symptoms:**
  - Urinary urgency and frequency
  - Pain is worse with bladder filling; improved with urination
  - Pain is worse with certain foods
  - Pressure in the bladder and/or pelvis
  - Pelvic Pain in up to 70% of women
  - Present in 38-85% presenting with chronic pelvic pain
Painful Bladder Syndrome

- **Diagnosis:**
  - Cystoscopy with bladder distension
  - Intravesicular Potassium Sensitivity Test
  - Presence of glomerulations (Hunner Ulcers)

- **Treatment:**
  - Avoidance of acidic foods and beverages
  - Antihistamines
  - Tricyclic antidepressants
  - Elmiron
  - Intravesical therapy: DMSO (dimethyl sulfoxide)
Differential Diagnosis: **Gastrointestinal** Conditions that may Cause or Exacerbate Chronic Pelvic Pain

**Level A**
- Colon Cancer
- Constipation
- Inflammatory Bowel Disease
- Irritable Bowel Syndrome

**Level B**
- None

**Level C**
- Colitis
- Chronic Intermittent Bowel Obstruction
- Diverticular Disease

Source: ACOG Practice Bulletin #51, March 2004
Irritable Bowel Syndrome (IBS)

- **Description:** Chronic relapsing pattern of abdominopelvic pain and bowel dysfunction with intermittent diarrhoea and constipation

- **Prevalence**
  - Affects 12% of the Western population
  - 2:1 prevalence for women: men
  - Peak age of 30-40’s
  - Rare in women over 50
  - Associated with elevated stress level

- **Symptoms**
  - Diarrhoea, constipation, bloating, mucosy stools
  - Symptoms of IBS found in 50-80% women with CPP
Irritable Bowel Syndrome (IBS)

- **Diagnosis based on Rome II criteria**

- **Treatment**
  - Dietary changes
  - Decrease stress
  - Cognitive Psychotherapy
  - Medications
    - Antidiarrheals
    - Antispasmodics
    - Tricyclic Antidepressants
    - Serotonin receptor (3, 4) antagonists

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Rome II Criteria for Irritable Bowel Syndrome

At least 12 weeks (need not be consecutive) in the preceding 12 months of abdominal discomfort or pain that has 2 of 3 features:

1. Relieved with defecation
2. Onset associated with a change in frequency of stool
3. Onset associated with a change in stool form or appearance

The following symptoms are not essential for the diagnosis, but their presence increases diagnostic confidence and may be used to identify subgroups of irritable bowel syndrome:

- Abnormal stool frequency (more than 3 per day or fewer than 3 per week)
- Abnormal stool form (lumpy, hard or loose, watery) in more than 25% of defecations
- Abnormal stool passage (straining, urgency, or feeling of incomplete evacuation) in more than 25% of defecations
- Passage of mucus in more than 25% of defecations
- Bloating or feeling of abdominal distention in more than 25% of days

Differential Diagnosis:
Musculoskeletal Conditions that may Cause or Exacerbate Chronic Pelvic Pain

**Level A**
- Abdominal Wall Myofascial Pain (Trigger Points)
- Chronic Back Pain
- Poor Posture
- Fibromyalgia
- Neuralgia of pelvic nerves
- Pelvic Floor Myalgia
- Peripartum Pelvic Pain Syndrome

**Level B**
- Herniated Disk
- Low Back Pain
- Neoplasia of spinal cord or sacral nerve

**Level C**
- Lumbar Spine Compression
- Degenerative Joint Disease
- Hernia
- Muscular Strains and Sprains
- Rectus Tendon Strains
- Spondylosis

Source: ACOG Practice Bulletin #51, March 2004
Differential Diagnosis: Psychological/Other Conditions that may Cause or Exacerbate Chronic Pelvic Pain

**Level A**
- Abdominal cutaneous nerve entrapment in surgical scar
- Depression
- Somatization Disorder

**Level B**
- Celiac Disease
- Neurologic Dysfunction
- Porphyria
- Shingles
- Sleep Disturbances

**Level C**
- Abdominal Epilepsy
- Abdominal Migraines
- Bipolar Personality Disorder
- Familial Mediterranean Fever

Source: ACOG Practice Bulletin #51, March 2004
Psychological Associations

- 40 – 50% of women with CPP have a history of abuse (physical, verbal, sexual)

- Psychosomatic factors play a prominent role in CPP

- Psychotropic medications and various modes of psychotherapy appear to be helpful as both primary and adjunct therapy for treatment of CPP

- Approach patient in a gentle, non-judgmental manner
  - Do not want to imply that “pain is all in her head”
Adhesions and Pelvic pain

• Adhesions occur in 40% with CPP

• In 25% of cases no pathology identified

• Reduction or complete amelioration in pain in about 80% after adhesiolysis.

Consider the Bladder in Women With Unresolved CPP

- 61% have no obvious aetiology for CPP
- 80% of women with CPP receive an initial diagnosis of endometriosis
- Up to 54% of women treated medically for endometriosis continue to experience CPP
  - 5% to 26% have reported continuing CPP ≥1 year after hysterectomy
- The bladder is believed to be the source of CPP in over 30% of female patients

Conclusions

- Chronic Pelvic Pain requires patience, understanding and collaboration from both patient and physician.

- Obtaining a thorough history is key to accurate diagnosis and effective treatment.

- Diagnosis is often multifactorial – may affect more than one pelvic organ.

- Treatment options often multifactorial/ multidisciplinary – medical, surgical, physical therapy, cognitive.
Thank YOU