Chronic Pelvic Pain

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What is Chronic Pelvic Pain CPP ?

Pain that occurs in the lower abdomen or pelvis:

- For at least 6 months
- Not associated with pregnancy
- Not exclusively with menstruation
- Not exclusively with intercourse
- Affecting QoL

Etiology and epidimiology

1 in 6 women suffers from chronic pelvic pain

Challenging to make the diagnosis

Pain is an emotional and personal experience

Affected by physical, psychological and social factors

Not reported by all women equally

Impact of Chronic pelvic pain

Economical burden

Social burden

Disruption of quality of life

Healthcare burdens

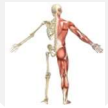
Referrals
Investigations
operations

Sources of chronic pelvic pain

Gynecological.

Urological

Gastrointestinal



Musculo-skeletal

Neuropathic

previous pelvic surgery or after delivery.

Multiple causes

Gynaecological causes of CPP

Causes of CPP

1. **Nervous system: central and peripheral**

Central Visceral Hyperalgesia

Chemical and nonchemical factors that persist to cause changes to afferent and efferent pain nerve pathways peripherally and centrally:

Afferent:

- Could be triggered by trauma, inflammation, infection, fibrosis
- TNF: Change or stimulate peripheral nervous system

Efferent:

- Change in pain perception as influenced by central nervous system
  - Descending information influenced by experience and circumstances

Causes of CPP

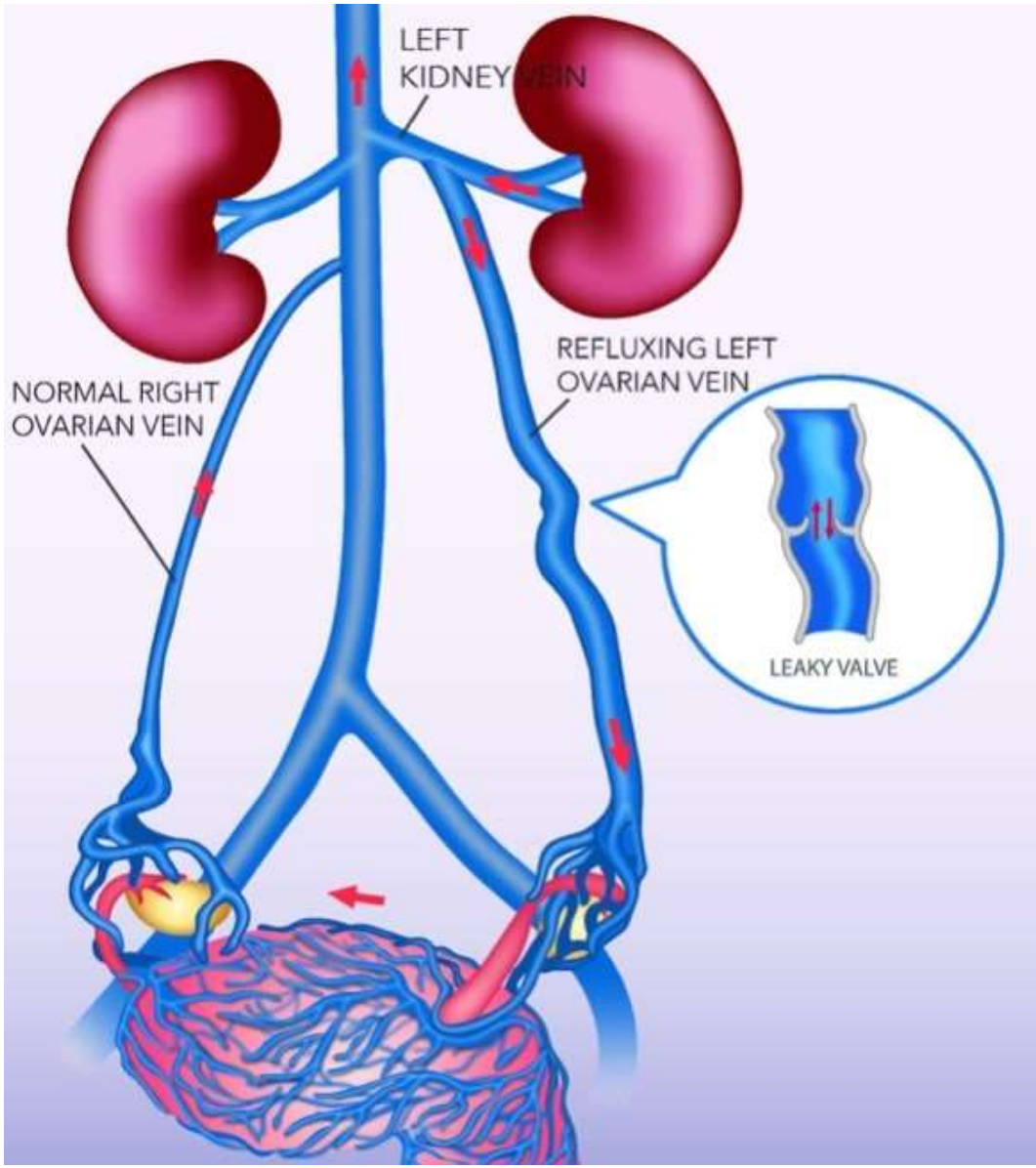
2. Endometriosis

- Affects 1 in 10 women in the UK
- Dysmenorrhea related, cyclical with dyspareunia and eventually CPP
- Costs around £8.2 billion annually
- It takes 7.5 years on average to diagnose it (endometriosis UK)
- Related to Adenomyosis:
  - Same etiology
  - High incidence of co-existence 70%

Causes of CPP

Pelvic congestion syndrome

- Elusive to diagnose
- Controversial diagnosis as a cause of CPP
- Treatment involves continuous suppression by progestogens or GnRH agonists (GnRH better)



Causes of CPP

3. <u>Adhesions</u>

- Adhesions could involve GI or other pelvic organs
- Acquired following trauma, surgery, inflammation, infection, endometriosis

- Dense adhesions Vs Filmy adhesions
  - Limit physiological mobility (sliding or peristalsis) and may cause organ stretching or distention
  - Division of dense, vascular adhesions showed significant improvement in pain in one study 2003.

- Controversy
  - As a cause of CPP
  - In treatment and long-term outcomes

Hum Reprod Update. 2017 May 1;23(3):276-288. doi: 10.1093/humupd/dmx004.

Surgical treatment of adhesion-related chronic abdominal and pelvic pain after gynaecological and general surgery: a systematic review and meta-analysis.

van den Beukel BA[1], de Ree R[1], van Leuven S[1], Bakkum EA[2], Strik C[1], van Goor H[1], Ten Broek RPG[1].

Author information

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Outcomes:

- Laparoscopic adhesiolysis reduces pain from adhesions in ~70% of patients in the initial phase after treatment.

Limitations and risks:

- No evidence on long-term efficacy of adhesiolysis
- Risks of negative laparoscopy
- Laparoscopy related morbidity mainly bowel injuries

Special forms of adhesions

Residual ovary syndrome:

- Small amount of ovarian tissue inadvertently left behind following oophorectomy
- May become buried in adhesions

Trapped ovary syndrome

- Retained complete ovary becomes buried in dense adhesions post-hysterectomy)

- Treatment:
  - surgical removal of all ovarian tissue or suppression
  - GnRH analogues

Non-gynaecological causes of CPP

Gastrointestinal causes of CPP

- **IBS**
  - Could be the sole cause of CPP
  - May be a secondary effect of efferent neurological dysfunction
  - 50% of women attending gynaecology clinics and pelvic pain clinics
  - Anti-spasmodics are proven to improve symptoms
- Chronic Appendicitis
- IBD
- Hernia
- Diverticulitis

Urological Causes

- **Interstitial cystitis**
  - 38-84% of patients presenting to pelvic pain clinics

- **Chronic bladder pain syndrome**
  - Unpleasant sensation related to the urinary bladder, associated with lower urinary tract symptoms of more than 6 weeks duration
  - Absence of infection or any identifiable cause

Other causes

- Chronic urethritis and urethral caruncle
- Bladder neoplasm.
- Urolithiasis

Musculoskeletal causes

- May be the primary and sole cause of CPP
- Secondary to CPP due to compensatory postural changes

- Damage to lower abdominal and pelvic muscles (sports)
- Pelvic bony misalignment (post delivery)
- Pelvic organ prolapse
- Endometriosis hyperalgesia secondary to modulation of nerve pathways

- Unknown causes
  - Localized areas of tenderness “trigger points”
  - Asymmetrical pelvic muscle tone- muscle contractures

Pain Medicine

Pain Medicine 2010; 11: 224–228

Importance of Pelvic Muscle Tenderness Evaluation in Women with Chronic Pelvic Pain

Clin J Pain. 2016 Aug; 32(8): 659–665.

PMID: 26491938

doi: 10.1097/AJP.0000000000000307

The Pelvis and Beyond: Musculoskeletal Tender Points in Women with Chronic Pelvic Pain

Tatiana V. D. Sanses, MD,[a,b,#] Gisela Chelimsky, MD,[c] N. Patrick McCabe, PhD, MBA,[b] Denniz Zolnoun, M.D,[d] Jeffrey Janata, PhD,[a,b] Robert Elston, PhD,[b] C.A. Tony Buffington, DVM, PhD,[e] Pippa Simpson, PhD,[f] Liyun Zhang, PhD,[f] and Thomas Chelimsky, MD[c,*]

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Psychological and social issues

Depression and sleep disorders are common in women with chronic pain

This may be a consequence rather than a cause of their pain

May reduce pain threshold levels or modulate efferent pain nerve fibers “somatic hyperalgesia”

Women with CPP are more likely to report physical or sexual abuse as children compared to pain free women:

More likely to be victims of continuous physical or sexual abuse

Abuse can create depression, anxiety or somatisation, which then predispose the individual to the development or presentation of chronic pelvic pain

Assessment of women with CPP

- Adequate time:
  - Listen to their stories
  - Listen to their theories behind CPP
  - Provide a patient centered approach
  - Good communication as a basis for successful treatment

Human factors

Journal of Women's Health, Vol. 7, No. 8 |

Factors Influencing Outcome in Consultations for Chronic Pelvic Pain

SUSAN A. SELFE, ZOË MATTHEWS, and R. WILLIAM STONES

Published Online: 25 Apr 2009 | https://doi.org/10.1089/jwh.1998.7.1041

“This study highlights the importance of good communication as a basis for successful treatment of a group of hostile patients and indicates the influence in individual doctors of subtle attitudinal and personality factors that modify patients' experience of the medical consultation.”

Initial assessment

History:

- Beware of “Red Flag” symptoms that may indicate the presence of malignancy
- Inquire about past or present sexual history and partner violence
- Consider a pain diary over few cycles
- Assess level of dysfunction and interruption of normal life activities
  - To monitor impact on QoL
  - To assess progress to treatment
  - Emphasize value of functional goals and rehabilitation

Obtain history specific to different systems:

- Gynecological.
- Urologic history.
- Musculo-skeletal history.
- Neurologic.

- **Refer when appropriate**

Initial assessment

Physical Examination

- General examination
- Abdominal examination
- Pelvic examination
  - Focal tenderness, enlargement, distortion or tethering, or prolapse.
- Highly localised trigger points and pelvic muscle tone assessment
- Tender joints (MSK)

Initial assessment

Investigations:

- Baseline investigations (FBC, Urine analysis, CRP)
- “All sexually active women with chronic pelvic pain should be offered screening for sexually transmitted infections (STIs)” RCOG
- Ca125
  - In women reporting bloating, early satiety, pelvic pain or urinary urgency or frequency
  - More than 12 times per month
  - Particularly if over 50 years of age

Initial assessment

Imaging: TV USS and MRI

- TV Ultrasound Scan:
  - Appropriate to identify adnexal masses
  - Improves pre-laparoscopy probability of identifying endometriosis (tenderness or poor ovarian mobility) from 58% to 73%.
  - Good negative predictive value 80%
  - For adenomyosis: sensitivity 65–68% and specificity 65–98% (use of diagnostic criteria is suggested)

- MRI
  - RV endometriosis
  - Subtle endometriotic nodules (needs expert with special interest)
  - Adenomyosis: Sensitivity of 70–78% and specificity of 86–93% (pre-ablation)
  - Rare pathology

Diagnostic Laparoscopy for CPP

- May be better seen as ***a second-line investigation*** if other therapeutic interventions fail
- Many women may feel disappointed that no diagnosis has been made, which may lead to disengagement with the medical process.
- Should be performed only when the index of suspicion of adhesive disease or endometriosis requiring surgical intervention is high

Diagnostic Laparoscopy for CPP

- More than 40% of laparoscopies are performed in CPP

- **One third to one half of diagnostic laparoscopy will be negative**

(i.e up to 50% will not have any detectable pathology)

- About 50- 60% of women with CPP have at least one condition detectable by laparoscopy (endometriosis, adhesions, hydrosalpinx, cyst)

Therapeutic Options

Journal List › Br J Pain › v.9(4); 2015 Nov › PMC4616979

British Journal of Pain SAGE

Br J Pain. 2015 Nov; 9(4): 233–240.
doi: 10.1177/2049463715584408

PMCID: PMC4616979
PMID: 26526186

The development and delivery of a female chronic pelvic pain management programme: a specialised interdisciplinary approach

Hannah Twiddy,[1] Natalie Lane,[1] Rajiv Chawla,[1] Selina Johnson,[1] Alison Bradshaw,[1] Shaireen Aleem,[2] and Lucinda Mawdsley[1]

- ”Successful treatment requires a multimodal and multidisciplinary approach involving physiatrists, pain physicians, obstetricians-gynecologists, urologists, gastroenterologists, primary care providers, physical therapists, psychiatrists and psychologists.”

Therapeutic options

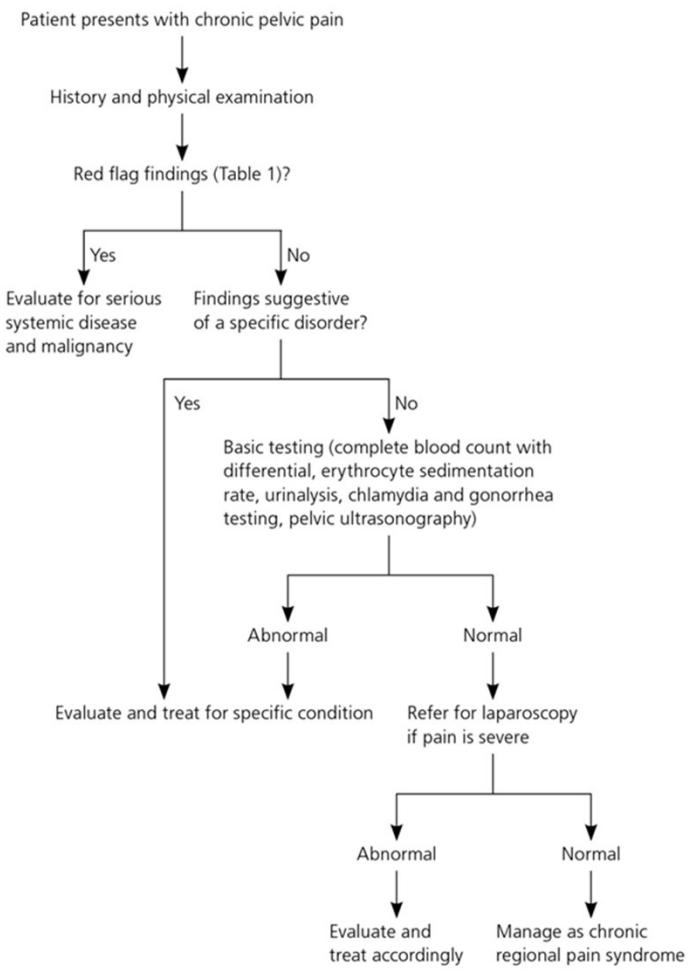
1. Analgesia and pain modification:
   - Paracetamol and NSAID
   - Amitriptyline or gabapentin: mainly in non-cyclical pain

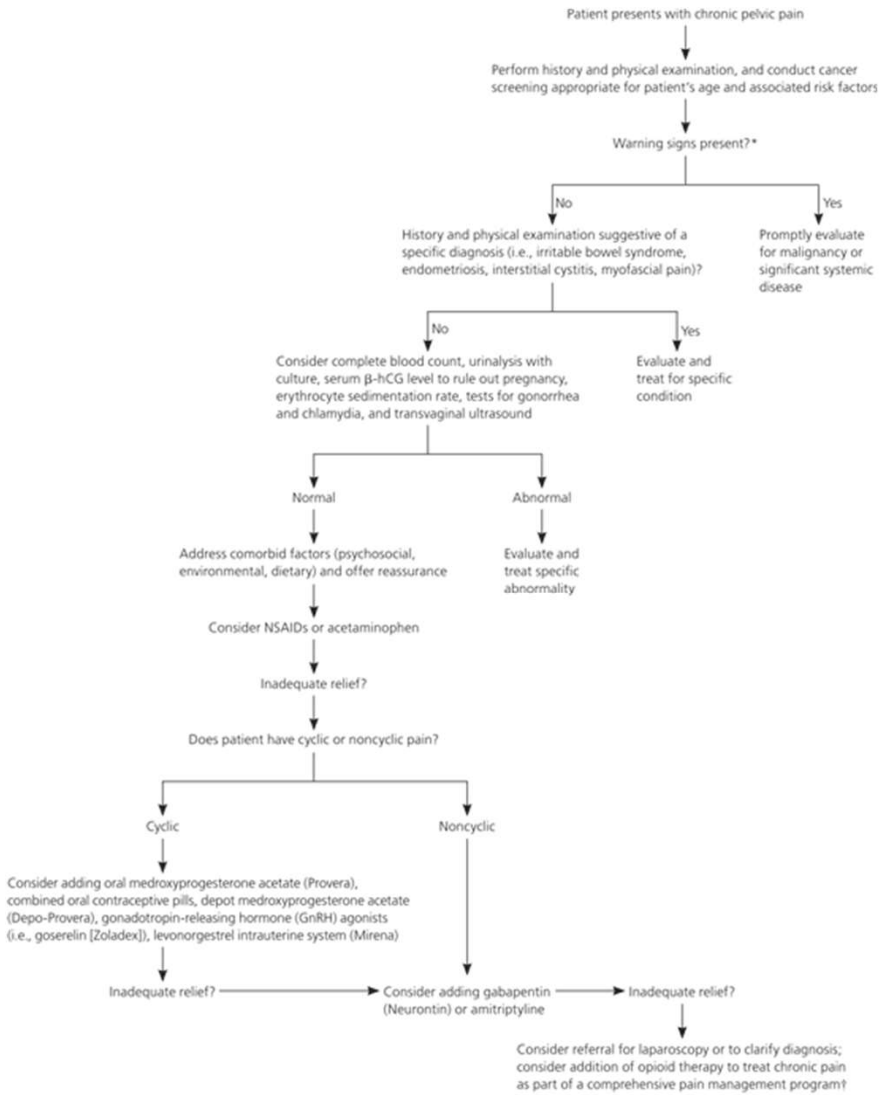
2. **When pain is cyclical consider 3-6 months of ovarian suppression:**
   - OCP, Progestogens, Danazol
   - GnRH
   - IUS Mirena
   - Works well for endometriosis related and non endometriosis cyclical pain.
   - *Should be offered before diagnostic laparoscopy*

3. If IBS is suspected:
   - Antispasmodics: mebeverine hydrochloride
   - Diet modification: exclusion diet- 36% (dairy) sustained improvement.

Managing acute abdominal pain in women with CPP

- Can be challenging to differentiate a flare of chronic pelvic pain from new developing pathology
- Patients with known diagnosis of chronic pelvic pain may be isolated or overlooked given their established condition
- There are concerns of drug/pain-relief seeking behaviors
- Several algorithms have been proposed to identify red flag signs and symptoms in women presenting with abdo pelvic pain with known background of CPP


Patient presents with chronic pelvic pain
History and physical examination
Red flag findings (Table 1)?
Yes
No
Evaluate for serious systemic disease and malignancy
Findings suggestive of a specific disorder?
Yes
No
Basic testing (complete blood count with differential, erythrocyte sedimentation rate, urinalysis, chlamydia and gonorrhea testing, pelvic ultrasonography)
Abnormal
Normal
Evaluate and treat for specific condition
Refer for laparoscopy if pain is severe
Abnormal
Normal
Evaluate and treat accordingly
Manage as chronic regional pain syndrome



**—Warning signs include: unexplained weight loss, hematochezia, perimenopausal irregular or postmenopausal vaginal bleeding, or postcoital bleeding.*
†—Consider referral for consultation or specific testing (e.g., laparoscopy) at any step of evaluation or treatment if the clinical picture is unclear, the patient does not respond to treatment as expected, or if significant underlying disease is suspected. This approach is only suggested as a stepwise process and should be individualized for each patient.

Conclusion

Chronic Pelvic pain affects approximately 15% of women

Delays in diagnosing endometriosis may increase the volume of women with Chronic pelvic pain

There are several factors that influence the development of chronic pelvic pain, these factors may overlap

Women Centered Care

LISTEN TO HER STORY

ENCOURAGE PAIN DIARY TO IDENTIFY PAIN CYCLES OR PATTERNS

DEVELOP A PARTNERSHIP WITH THE WOMAN

REFER TO PELVIC PHYSIOTHERAPY

REFER TO EXPERIENCED CHRONIC PELVIC PAIN CLINICS OR CENTRES