Mater Mother's Hospital: acute management of persistent pelvic pain

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Persistent pelvic pain (PPP) affects 15–26 per cent,[1,2] of women. It is defined by pelvic pain for more than 3–6 months that is not solely related to menstruation, sexual activity or bowel movements.[3] PPP is caused by a complex combination of visceral and musculoskeletal pain, central sensitisation and pelvic floor hypertonicity, often accompanied by evolving psychological dysfunction.[3-6] Acute exacerbations (flares) of pelvic pain are common and often triggered by menstruation, constipation, UTI/bladder pain or pelvic muscle spasm.[7] Flares can last days to months and the patient will often have significant fear and anxiety relating to escalation of their pain. The result is frequent presentation to primary care providers and the emergency department (ED), where previously normal investigations are often repeated and admission (with repeat diagnostic laparoscopy) undertaken. This scenario is frustrating to both patient and clinician and results in excess hospital expenditure. We developed a guideline for acute management of PPP flares with the aim of preventing unnecessary investigation, admission and surgery. Management focuses on identification and treatment of specific triggers while providing validation, reassurance and education to the patient.

Persistent pelvic pain: the burden

PPP poses a significant societal and healthcare burden. In Australia, the cost of medical and surgical treatment for endometriosis alone amounts to over six billion dollars per year. Globally, this results in 11 hours and $200–250 lost per woman, per week, due to absenteeism and presenteeism, where an employee is working with reduced productivity.[8] Given that many ED presentations result in admission and diagnostic laparoscopy, the cost of which is up to $4289 USD,[9] there is clearly benefit to be gained from avoiding such intervention in the previously investigated PPP patient, when clinically appropriate. Additionally, if adequate education and reassurance can be provided in the acute setting, the patient may be more likely to accept ongoing outpatient management.

It is well established that a multidisciplinary approach to the management of PPP results in improved patient outcomes.[10-12] In June 2017, the Mater Mothers' Hospital Persistent Pelvic Pain Clinic (PPPC) was opened with the dual aims of improving patient outcomes and reducing hospital costs associated with unnecessary admissions or procedures. The changes made include the development of guidelines for the acute management of pelvic pain in the ED, and an effective multidisciplinary team approach to management in the clinic.

Management in the emergency department

The following guidelines provide a consistent approach to management following exclusion of acute intra-abdominal pathology. They educate women on strategies to improve their pain over the longer term, and support them to manage pain flares, avoiding the need for unnecessary presentation to ED. The principles of management are:

- Exclude acute intra-abdominal pathology
- Confirm symptoms consistent with an exacerbation of long-term pain
- Recognise and manage the likely trigger for the recent flare of pain
- Appropriate analgesia with avoidance of opioids
- Avoidance of repeat laparoscopy
- Assessment of psychological stressors and risk of self-harm
- Reassurance and acknowledgement of the patient's pain despite normal investigations
- Education and emphasis on self-management
- Appropriate follow up

Ongoing management in the PPPC

As of November 2018, 58 patients have commenced in the service. The core team includes advanced

History

A thorough, but timely, patient history should be obtained that is not biased by previous admissions or diagnosis

- Symptoms suggestive of pelvic muscle spasm include pain of sudden onset, unilateral or bilateral location, pain worse with movement, referring to anterior thigh, tender lower back/gluteal region, often described as 'stabbing' and may be related to a period of overactivity or stress
- Surgical history: prior laparoscopic surgery and findings
- Psychiatric history with assessment of risk of self-harm and current psychological symptoms of depression and/or anxiety, recent significant life events
- Medication history: opioids and doses, chronic pain medications (eg. amitriptyline/gabapentin/pregabalin/duloxetine), psychiatric medications
- Current engagement with and names of gynaecologist, pain services, psychiatrist, psychologist, pelvic floor physio

Examination

The patients examination should ideally be performed in a safe, and comfortable environment by an experienced practitioner

- Basic observations and abdominal palpation to elicit signs of peritonism that may indicate an anatomical cause
- Speculum examination may be warranted if history of bleeding or vaginal discharge, otherwise this may be avoided
- Vaginal examination: bimanual evaluation of the uterus and adnexa for localised tenderness or masses
- Pelvic floor examination: pelvic floor hypertonicity will be evident in most women with PPP. It is acute spasm of these muscles that contributes significantly to pain flares. Directed examination of the vulva, pubococcygeus, puborectalis, piriformis and obturator internus can localise the causative muscle group and replicate the patient's pain. This should only be undertaken by a clinician experienced in pelvic floor examination.

Investigations

The patients investigations should be performed to support clinical findings and not used in a 'scattergun', cover all possibilities approach

- Urine for exclusion of pregnancy and assessment of infection if indicated
- Consider blood tests and imaging only if clinical evidence of alternate pathology
- If indicated, USS is the best imaging modality to define acute pelvic pathology

Management

- Treat acute pathology as indicated
- Reduce fear and enhance management with an explanation of exacerbation of their long-term pain and the likely trigger for the flare where this is known, such as acute pelvic muscle spasm where this has been demonstrated
- Address reversible causes, such as constipation, UTI, dysmenorrhoea, hypertonic pelvic floor
- Non-pharmacological management: heat pack, mindfulness/deep breathing
  - Encourage patient to breathe to RR of 6
- Stepwise analgesia: IV/PO Paracetamol, PR Voltaren/IV Parecoxib if vomiting or PO Ibuprofen
  - Pregabalin 25–75 mg PO may also be helpful if there is a component of anxiety and pain related to central sensitisation
- For pelvic floor muscle spasm: PV or PR diazepam 5 mg[13] (in a fatty base, made by a compounding pharmacist), refer to gentle pelvic stretches available at: www.pelvicpain.org.au/for-women/easy-stretches-to-relax-the-pelvis-women
- For painful bladder symptoms: Ural or 500 mL water with 1 tbsp bicarb soda, increase PO fluid intake.
- For constipation:
  - Mild: movicol 2 sachets daily
  - Moderate: movicol 2–4 sachets daily, 2 dulcolax tabs mane until bowel movement
  - Severe: 2 microlax enemas, 3 dulcolax tablets and 8 sachets of movicol in 1L of liquid to drink over 12 hours
- For dysmenorrhea:
  - Diclofenac suppository 100 mg PR
- Opioids increase central sensitisation when used regularly and should be avoided where possible when acute pathology is excluded. Options if required:
  - Tramadol 50–100 mg PO or slow IV, beware of risk of serotonin syndrome with concomitant use of SSRI/SNRIs
  - Tapentadol IR 50 mg PO
  - Temgesic (Buprenorphine) 0.2–0.4 mg SL (this is equivalent to 10–20 mg PO morphine, therefore care with dosing in opioid naive)
  - If patients are on SR or IR opioids already, their treating GP must remain the sole prescriber
  - Opioids (SR or IR) generally should not be given for discharge. If opioids are administered in the ED, consideration should be given to co-administration of aperients such as movicol, rather than stimulants such as coloxyl/senna
- Encourage gentle mobilisation rather than bed rest to reduce muscle spasm
- Provide the patient with written information on pelvic pain, eg. Pelvic Pain Foundation of Australia (www.pelvicpain.org.au)
- Early follow up with primary healthcare provider, gynaecologist or persistent pelvic pain clinic

laparoscopic gynaecologist, pain specialist, psychologist and physiotherapist, with referral pathways to psychiatry, functional gastroenterology and colorectal surgeons. The structure comprises a six-month program with an initial, three- and six-month visit, as well as regular physiotherapy and psychology intervention. A general summary of long-term management in the PPPC includes:

- Emphasis on self-management and expectation setting: aim for pain reduction to a level that facilitates improved functioning and a return to usual activities with ongoing management planned as outpatient
- Provision of written and verbal information regarding long-term treatment and management of pain flares
- Complete laparoscopic excision of endometriosis by experienced endometriosis surgeon, as clinically indicated
- Achieving amenorrhoea with hormonal suppression
- Weaning off opioid medication
- Modulation of pain pathways using antidepressants (amitriptyline/duloxetine) or membrane stabilisers (gabapentin/pregabalin)
- Physiotherapy for pelvic floor downtraining with experienced women's health physiotherapist
- Psychology/psychiatric input
- Persistent Pain Education module
- Administration of pelvic floor botulinum toxin as clinically indicated

The acute exacerbation of PPP can be a frustrating encounter for both patient and clinician, frequently resulting in unnecessary intervention that yields little information or clinical improvement. By directing acute management at diagnosing and treating triggers, providing education and instituting multidisciplinary follow up, the patient can potentially be adequately managed as an outpatient, avoiding admission and its associated problems. As part of an auditing cycle, the Mater Mothers' PPPC is collecting prospective outcome data on all clinic attendances and is in the process of integrating with the Electronic Persistent Pain Outcomes Collaboration system.

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