Persistent Pelvic Pain

PHN 3rd August 2017
So I've got this frequent flyer...
Pollev

- Phone tablet or laptop on silent
- Can text or go to pollev.com/
I am putting off winter jobs around the house and there was something about sex in the title so I can’t fix and I need a structure for management. There’s a patient’s points due and this is the only thing I could get to.

My Women’s’ points are due and this is the only thing I could get to.

I am deeply interested in Persistent Pelvic Pain and want to learn more than the Fabulous Health Pathway info.
Contents

• New neuroscience
• Pelvic pain causes
• Evidence for endometriosis causing pain
• Running a multidisciplinary clinic from your rooms or hospital
• Cautionary tales
• 8 components of Chronic pelvic pain
Pain is ...

“Unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage”

*International Association for the Study of Pain*
Pain definition: Neuromatrix

“a multiple system output constructed by an individual specific pain neurosignature. This neurosignature is constructed whenever the brain concludes that body tissues are in danger and action is required... and pain is allocated an anatomical reference in the brain”

Moseley 2003 modified by Butler 2013
Chronic or persistent pain perceived in structures related to the pelvis with no obvious local disease that accounts for the pain.

It is often associated with negative cognitive, behavioral, sexual, and emotional consequences, as well as symptoms suggestive of low urinary tract, sexual, bowel, pelvic floor, or gynecological dysfunction.

EAU/IASP 2012
Old neuroscience

**Primary Afferent Axons**

<table>
<thead>
<tr>
<th>Axon Type</th>
<th>Aα</th>
<th>Aβ</th>
<th>Aδ</th>
<th>C</th>
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<tbody>
<tr>
<td>Diameter (μm)</td>
<td>13-20</td>
<td>6-12</td>
<td>1-5</td>
<td>.2-1.5</td>
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<tr>
<td>Speed (m/s)</td>
<td>80-120</td>
<td>35-75</td>
<td>5-35</td>
<td>.5-2.0</td>
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</table>
New Neuroscience

• Neurones backfire: Neurogenic inflammation
• Neurones cross talk Rogers 1999
• Viscero visceral convergence
  – eg Uterus and bladder axons join at DRG cell body
• Silent nociceptors in viscera
Neuromatrix paradigm


• pain does not provide a measure of the state of the tissues
  *(no disease where activity correlates well with pain)*

• Nociception is not sufficient nor necessary for pain

• the relationship between pain and the state of the tissues becomes less predictable as pain persists

• No such thing as “emotional pain” or “physical pain”
  *they light up the same areas in the brain*
### Pelvic pain causes

#### Table 2.1 Common causes of chronic pelvic pain and common coexisting conditions

<table>
<thead>
<tr>
<th>Gynaecologic</th>
<th>Urologic</th>
<th>Gastrointestinal</th>
<th>Musculoskeletal</th>
<th>Psychological</th>
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</thead>
<tbody>
<tr>
<td>Endometriosis</td>
<td>Interstitial cystitis</td>
<td>Irritable bowel syndrome</td>
<td>Myofascial pain (trigger points)</td>
<td>Depression</td>
</tr>
<tr>
<td>Endosalpingiosis</td>
<td>Urethral syndrome</td>
<td>Chronic appendicitis</td>
<td>Pelvic floor myalgia and spasms</td>
<td>Physical or sexual abuse (previous or current)</td>
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<tr>
<td>Adenomyosis</td>
<td>Chronic urinary tract infection</td>
<td>Constipation</td>
<td>Nerve entrapment syndromes</td>
<td>Sleep disturbance</td>
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<tr>
<td>Pelvic adhesions</td>
<td>Bladder stones</td>
<td>Inflammatory bowel disease</td>
<td>Mechanical low back pain</td>
<td>Psychological stress (marital, work)</td>
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<tr>
<td>Chronic pelvic infections</td>
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<td>Disc disease</td>
<td>Substance abuse (alcohol, narcotics, other drugs)</td>
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<tr>
<td>Ovarian cysts</td>
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<tr>
<td>Residual ovary syndrome</td>
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<td>Ovarian remnant syndrome</td>
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<td>Post-hysterectomy pain</td>
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<td>Pelvic congestion syndrome</td>
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<tr>
<td>Fibroids</td>
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<tr>
<td>Vulvodynia*</td>
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</tbody>
</table>
• Look for comorbidities: common origin?
  – IBS
  – Painful bladder syndrome
  – Central sensitisation problems eg CFS, fibromyalgia
  – Migraine
  – Depression and anxiety

& remember that Pain begats Pain
The evidence for endometriosis causing and not causing pain
Physiological mechanisms of pain

<table>
<thead>
<tr>
<th>Nociceptive</th>
<th>Chemical</th>
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<tbody>
<tr>
<td></td>
<td>From tissues: bradykinin, PG, serotonin</td>
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<td></td>
<td>From nerves: NGF, Neurokinins, NA</td>
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<td></td>
<td>From immune cells: macrophages, cytokines</td>
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<td>Mechanical</td>
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<td>Thermal</td>
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<tr>
<td>Polymodal</td>
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</table>

| Inflammatory                    | From tissues                                 |
|                                  | From nerves                                  |
|                                  | From immune cells                            |

| Neuropathic                     | Damaged or dysfunctional nerves (peripheral or central) |

| Psychogenic, mixed, idiopathic  |                                              |
Hemorrhoids: there are 3 RCTs of n+1 look at lap and treat to test if this helps pain.
Pelvic pain & endometriosis have different brains to those with PPP no endo.
Endometriosis: as common as asthma or diabetes?

Start the presentation to activate live content

If you see this message in presentation mode, install the add-in or get help at PollEv.com/app
The evidence for endometriosis causing and not causing pain

Medical Trials

• Terrible evidence for NSAIDs
• All hormonal treatment good for endometriosis *Cochrane*
• Progestogens & anti progestogens & GnRH agonists > cOCP
• Aromatase inhibitors
• Really only one class of agents 😞
Burden of disease

- 176 million women worldwide 15-49y

*The $6 Billion Woman and the $600 million Girl 2011*

Pain severity

Number of women

Pain severity
Pain severity

Number of women

Pain clinic

Gynaecologists

General Practitioners

Gynaecologists

Multidisciplinary Pain clinic

Pain severity

Number of women
Smoking
Multidisciplinary care in Gynaecology
Azithromycin

Number of women

Pain severity

23
8 features of pelvic pain when you are running your own Multidisciplinary clinic

• Ovaries
• Uterus
• Muscles
• Bladder
• Bowel
• Rare stuff
• Head & nervous system
• Shift the curve
Assessment

• History – all the dyse? Dysmenorrhoea, dysuria, dyschezia, dyspareunia +/- non cyclic pain

• Examination – to the board & pelvis!
  – Features of central sensitisation, muscle tenderness, cotton tip test, endometriosis nodules, tender fixed uterus

• Investigations

• Management
1. Ovaries

- Exclude hormonally responsive problem with ovarian suppression
- Decent scan for endometriosis

www.safe-endo.com.au
2. Uterus

- Exclude uterus as a contributor – quiescence with amenorrhoea
3. Muscles
Muscles

• Myofascial pain or myalgia
• Abdominal Myalgia
  – Examine belly muscles
  
  *Shah 2008 micro dialysis catheters for triggers points*
• Pelvic myalgia
  – 1 finger VE
• Specialist pelvic pain physiotherapist who measures outcomes
4. Bladder & 5. Bowels

- Exclude bladder contribution
- Exclude bowel contribution
- Coeliac screen
- Find a good dietician
- Fibre, probiotics, low FODMAP
  - www.shepherdworks.com.au
- Gut hypnotherapy
6. Rare causes

- Porphyria
- Abdominal migraine
- Left sided “varicocoele” to embolise
- Hereditary angioedema
- Familial Mediterranean fever
7. Head

- Neurophysiology education & Explain Pain
- Psychologist (20% abuse)/psychiatrist for anxiety/depression/catastrophising – injustice and CBT; PTSD
- Medicines: amitriptyline, duloxetine, pregabalin, ketamine....
- Maximise lifestyle to dampen sympathetic response
  - sleep, sunshine, exercise, meditation
8. Shift the curve

- Find a great
  - Physiotherapist
  - Gastroenterologist
  - Psychologist
  - Dietician
  - Gynaecologist
  - GP
  - Chronic disease mx plan

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Endep 2.5mg nocte, increase weekly
Horizons

• Sleep & melatonin
• Medical marijuana
• Environmental toxins
• Genetics & Microbiome
• MBS pain educators
A slide about opiates

- Increase mortality
- Increase morbidity
- Aim to wean or declare dependence & treat accordingly – addiction medicine specialist?
Sex hormone influence on pain

• Not much research
• Menstrual cycle used as a marker
• Variability within individuals
Biological activities of natural progesterone and synthetic progestins

<table>
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<tr>
<th>Progestin</th>
<th>Progestogenic</th>
<th>Anti-gonadotropic</th>
<th>Anti-estrogenic</th>
<th>Estrogenic</th>
<th>Androgenic</th>
<th>Anti-androgenic</th>
<th>Gluco-corticoid</th>
<th>Anti-mineralo corticoid</th>
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</tbody>
</table>

Taken from reference [5,7,8,10–15]. (+) effective; (±) weakly effective; (−) not effective
A slide about adolescents

• Dysmenorrhoea is common
• They miss school
• This is no good
• Fix the dysmenorrhoea:
  – Hormonal: amenorrhoea with whatever
  – Address prostaglandin related symptoms with NSAIDs
  – Zinc sulphate 50mg nocte ANZJOG 2015
A slide about bleeding disorders

- blood noses, gums, PPHs, return to theatre after teeth or tonsils, heavy menstrual bleeding
- Early data assoc endometriosis
- Index doctor can order tests
- Von Willebrand’s disease & platelet function problems (PFA 100 Melb Path) off hormones and NSAIDs
- Philosophy of blood/women’s problem
- Implications for surgery, giving birth, inheritance
Case study MB 2010

• First presented age 15 [to GP] with pre-menstrual mood symptoms as well as menorrhagia and dysmenorrhagia. Commenced Levlen.

• Mood symptoms worsened, diagnosed with depression, referred for counselling and later commenced Lovan.
2012 17yo

• 2 years later, seen with increasing dysmenorrhoea, with pain prior to, during, and a few days after period. Lots of OTC pain meds.

• Concurrently worsening depression, with subsequent psychiatrist involvement and increase in medication. Informed psych of a sexual assault by previous boyfriend.
2013 18yo

- Ongoing heavy painful periods. Trial implanton, but experienced continuous bleeding and removed. Referred to Marilla. Ultrasound - polycystic ovaries. Bloods and Chlamydia normal. BMI 40
• 2013 Gynae review letter

• 18yo with dysmenorrhoea worsening from menarche and lasts a few days before to 2 days after her regular cycle. It sounds like you have given it a good go with different pills, anti nausea meds for the side effects, and an Implanon.
• periods heavy and the tranexamic acid ↓ pain and volume.
• She uses Mersyndol and nurofen plus, these improve her pain from 10/10 to 4/10.

• Periods - regular, bleeding 7-9/28, heaviness: pads only, no overnight changes, nose bleeds but nose cauterised and helped. no gum bleeds. Condoms for contraception.

• menarche - 12yo
• Dyspareunia with regular partner (not too much info elicited here - mother accompanying, will ask more next time!)
• no chlamydia
• Bladder - no complaints
• Bowels - no bloating, every day, no pushing
• Medical - depression, has seen psychologist
• Surgical - none
• Medicines - fluoxetine, NKA
• non smoker, no alcohol
• Uni student doing psychology first 12m at Deakin

• Social - lives with R her mother & younger sister older brother

• Family history - mother endometriosis recent diagnosis borderline tumours, breast cancer paternal grandmother late 60s.

• Examination: overweight, stretch marks. A skinny speculum was too uncomfortable for cervix view, HVS for chlam taken. Her muscles were taut, tender and had limited squeeze because they were already contracted at rest. The uterus was tender, no nodules of endo were palpable along the uterosacral ligaments.

• Dysmenorrhoea which has worsened and could be due to endometriosis. She has a probably secondary phenomenon of pelvic myalgia.

• Plan: screen chlamydia, US with Sofie Piessens (COGU with endo experience), physio with Celia Bolton, screen for vWD/TSH etc cc to you (women with endo more likely to have a bleeding disorder) and she will consider a Mirena - info given - would need operation.
• 2014
• Referred to Celia Bolton.

• Over the next 2 years was referred to Jigsaw for what was eventually described as severe, treatment-resistant depression and trialled many psych drugs and had 20 ECT sessions. As well as counselling. No change apart from huge weight gain. Remains on Abilify 30mg, Pristiq 150mg and Seroquel 100mg.
• 2014 Gynae review: Persistent pelvic pain and menorrhagia seen with mum (who is also on Endep).

• LMP months ago - secondary amenorrhoea. Endometrial thickness normal on scan - but Polycystic ovaries, no obvious endometriosis. Using Nurofen plus, Strong pain plus. No physio yet - too scared

• Examination: 171cm 118kg BMI 40
• Issue:
  – secondary amenorrhoea - check prl & FSH
  – PCOS - not a cause of pain
  – Could have S1 endometriosis
  – Predominantly pelvic myalgia

• Management:
  – encouraged to see physio
  – declines operation & Endep
  – check Prolactin and FSH
  – discussed low GI/BHC fibre handout, lose 5kg in 3 months, walking enough
2017 – 22yo

- Seen at Persistent Pelvic pain clinic at UHG]
- Pain: Lower abdo and back, worse standing, wakes her, every day
- 2016 “set back” depression – CBT & thought diaries, activity journals
- Meds – Ponstan, Tramadol, Endep, P extra, Maxolon for nausea; Pristiq, Abilify, Seroquel
- No smoking/alcohol
• GIT – pain and nausea associated, bowels daily Bristol T2, Pain in abdo with bowels
• Bladder – no frequency, nocturia x1, no stress or urge urinary incontinence, no voiding dysfunction, no UTIs, “pressure feeling” in vagina x3-4/week, caffeine x1/day, no artificial sweeteners, “stings” deep inside
• Headaches – occasionally “bad” headaches, no migraine
• Snores – yes, grinds teeth – retainer ground away, braces 5y
• Medical – depression, obesity, PCOS, past physio
• Periods – none 2.5y “properly”, no scan 3y, random spotting, no acne/hirtsuitism
• Social – lives with mother, sister brother, about to start studying psychology at Deakin
• Examination – obese, abdo palp tender suprapubically, Carnett’s negative, vulva normal, cotton bud neg (for vulvodynia), levators tender

• Impression
  – QOL issues – weight, mental health
  – Amenorrhoea and PCOS and protecting endometrium
    – US HD&C Mirena
  – Pap – leave for the moment (could do self collection >dec)
  – Coeliac screen TSH iron
  – Optometrist

• Plan – US BMI, physio, cat 2 HD&C Mirena
• HD&C Mirena now worse pain
• Mirena
  – for amenorrhoea
  – PCOS endometrial cancer prevention
  – Obese and cOCP relative CI

  – Requesting removal
    • Anti preterm labour meds: Ventolin, nifedipine
    • Mechanism for worse pain: uterine contractions, visceral hyperalgesia/thalamic filtering
    • Autonomy
- Dec 2016
- Referred to the PPPC. Pain every day despite amenorrhoea. Abdominal and back pain, nausea, gut pain, a feeling of prolapse. Ultrasound again showed polycystic ovaries, but difficult examination with BMI > 40. Endometrial thickness 7 mm. Referred to physio.
- Mirena inserted July 2017 but constant pain following procedure and removed yesterday.
- Medications currently include Maxolon, Palexia SR 200mg bd, Ponstan, Mefenamic acid 500mg tds as well as her psych meds.
Issues:

• PCOS and regular bleeds to prevent hyperplasia
• Pain & nausea
  – Containment, first no harm, gut hypnotherapy?
• Mental health
• obesity
• Ddx endometriosis/central sensitisation
• Opiate use and meds – pain physician
Use of the Ethical Grid:

- Resources available
- Effectiveness and efficiency of action
- Wishes of others
- The risk
- The law
- Codes of practice
- Disputed evidence/facts
- The degree of certainty of the evidence on which action is taken

Most beneficial outcome for the individual

- Keep promises
- Respect persons equally
- Do most positive good
- Serve needs first
- Minimise harm

Most beneficial outcome for society

Most beneficial outcome for a particular group

Tell the truth

Resource and efficiency of action

Wishes of others

The risk

The law

Codes of practice

Disputed evidence/facts

The degree of certainty of the evidence on which action is taken
• Online resources:
  – Pelvic Pain Foundation Australia  
    http://www.pelvicpain.org.au/
  – Pain stories WA
  – Hunter regions Brainman

• Local resources
  – Persistent pelvic pain clinic
  – Physiotherapy: Eliza Barry, Celia Bolton, Becky Hollows, Naomi Nalder (GH)
  – Psychologists: Leonie Cole, Catherine Bull, Pain matrix E&E
  – Sexual & reprod health CNC Rochelle Hamilton
  – Yoga – need a PPP teacher
  – Pain physicians/addiction medicine GPs
Pelvic Pain Foundation
OF AUSTRALIA

Pelvic pain affects 1 in 6 women and 1 in 12 men at some point in their lives. It’s a condition that’s deeply misunderstood.
You don’t have to put up with pelvic pain

pelvicpain.org.au

Visit our website for information on pelvic pain for women and men, their families and their health practitioners.

See your GP for a referral to the Integrated Pelvic Pain Clinic at University Hospital Geelong
pelvicpain.org.au