The Fundamentals of Persistent Pain Management

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Outline

+ Understanding “diagnosis” in persistent pain
+ Biopsychosocial considerations in pain management
+ Overview of the Pharmacological, procedural and non-pharmacological aspects in pain management
Understanding Diagnosis in Persistent Pain
What is Persistent Pain?

When we say Persistent pain we are saying

+ The pain has persisted for more then 3 months
+ It has persisted beyond normal healing
+ The pain no-longer serves a protective mechanism
Why do people develop Persistent Pain

The Pathophysiology – Central Sensitization

Neurophysiological and psychological - emotional, motivational and sensory discriminative elements to pain

Function – Disability, sick role, maladaptive coping mechanisms
Acute vs Chronic Pain

+ Acute pain has a clear reason
+ Acute pain serves a purpose
  
  *I don’t want to walk on my broken leg*
  *My insides hurt so I need to find a surgeon*
  *I am not going to get stung by a Bee again*
+ Chronic pain does not have a clear reason
+ Chronic pain does not serve a purpose
  
  *My back hurts – I don’t want to walk – Now my back hurts more*
The transition from Acute to Chronic

- Disease elements – progressive degenerative disease, cancer
- Patient elements – pre-morbid psychopathology, chronic illness, psycho-social influences, secondary gain
- Treatment elements – passive model of care, learned helplessness, limited access to appropriate care, poorly managed acute pain
Persistent Pain as a disease

- Declared a disease in its own right by IASP in 2004
- The propagation of pain is not due to the disease itself but instead behavioural and neurological maladaptive changes
- These changes have been quantified with Functional MRI and histology of spinal cord tissue and brain tissue
BioPsychoSocial aspects of pain management
Central Sensitization

- A phenomena gaining increasing recognition in the study of pain
- Process of maladaptive CNS changes
- Neuro-inflammatory in nature
- Changes at level of spinal cord, Brainstem and Cerebrum
  - Associated with expansion and worsening of the painful area, involvement of sites distant from the painful area
  - Cognitive and Autonomic changes
Referred Vs Radicular Pain

**Referred pain** - is felt at a location other then the site of nociceptor stimulation

Largely due to convergence of multiple Peripheral neurons on the same level of the spinal cord
Examples include a sore shoulder and gallstones, left arm and ischemic heart pain, lumbar facet pain and sore hip

**Radicular pain** - pain from a nerve root

Thin burning/ electric band, few cm wide at most, classically lower limb → foot
This is largely considered over diagnosed as it is easily confused with referred pain from Lumbar spine, SIJ or hip joint.
The Flag System

- **Red Flag** - Cancer!, Autoimmune disease
- **Yellow** – Problematic thinking
- **Orange** – Psychiatric Issues
- **Blue** – Issues with going back to work (on the patient side)
- **Black** – Issues going back to work (system barriers)
Understanding “diagnosis” in persistent pain

- **The Disease** - this is not only the injury / illness but the why the body has changed in response – classically for the worst

- **Predisposing Factors** - who they were before the become unwell that influences them now?

- **Perpetuating Factors** - maladaptive behaviours which may provide short term respite at the cost of recovery or rehabilitation
The Yellow flags can be seen as the Major perpetuating factors

**Attitudes** – Catastrophic thinking

**Behaviours** – Overdoing activity → Flare ups, reduced activity → deconditioning

**Compensation** – strong association with chronicity

**Diagnosis** – Patients with multiple diagnoses/ don’t agree with diagnosis, “shopping’ to find a diagnosis that ‘suits’ them

**Emotions** – Depression, Anxiety

**Family** – Supports, secondary gain with sick role

**Work** – attitude/ Fear towards work

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The treatment of Chronic Pain
Pharmacologic and non Pharmacological strategies
Medications

Medications in chronic pain can be divided into four major categories

- Anti-convulsants – Lyrica (Pregabalin), Neurontin (Gabapentin), Eplim (valproate)
- Anti-depressants – Cymbalta (Duloxetine), Endep (Amitriptyline)
- Non-Steroidal anti-inflammatory drugs (NSAIDS) – Neurofen (ibuprofen), Panadol
- Opioids – Endone (oxycodone), Durogesic (fentanyl)
Medications

All have potential benefits / risk

In chronic pain will only work for 1 in 3

Significant pain relief 30 – 50%

Aim to help function not just reduce pain
Risks of opioids

1. Addiction
2. Overdose - death
3. Dependence
4. Depression
5. Cognitive impairment
6. Chronic constipation
7. Immune and endocrine
8. Opioid induced hyperalgesia
Procedures for pain

No procedures can permanently block or kill nerves

+ Patient specific – depends on site, source & type of pain, along with other medical factors
+ Diagnosis or therapy
+ Most have short-lived effect
+ Can have serious side effects - side effect

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Active vs Passive pain management strategies

Active: the pain sufferer must actively participate in the pain relieving or pain managing activity to see the benefit

- Yoga
- Breathing techniques
- Active distraction
- Exercise
- Stretching
- Activity pacing

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Active vs Passive pain management strategies

Passive: performed by someone else rather than by the patient
- Heat packs/ cold
- Manual therapy/ massage
- Acupuncture
- Medications
- TENS
- Procedures
In Summary

- Chronic pain is a disease in its own right involving changes to the body independent of the inciting injury.
- The severity of impairment is determined by many biological, psychological and social factors.
- Medications and Procedures tend to provide modest improvement at best.
- Best outcomes include a multi prong management plan including medications, procedures, psychological intervention and physical therapy.
- Even with gold standard therapy to goal is often to improve someone’s function and coping and not ablate the pain itself.
Thank you
Any questions?