

# Evaluation and Management of Pain in Children

# What is pain?

- Is a very complex experience
- Affects psychology and physiology of the person experiencing it
- Is a response for self preservation
- Depends on many sensory, affective, and cognitive factors
- Is associated with actual or potential tissue damage

# Pain

- Is very common
- Is unpleasant
- Is subjective
- Is detrimental
- Is usually poorly treated
- Is often caused by us

# Pain assessment

- This is poor
- Even worse in old and young
- Acute versus chronic

# Types of pain

- **Nociceptive** - SOMATIC or VISCERAL
- **Neuropathic**
- **Mixed**
- **Psychogenic**

# NOCICEPTIVE PAIN

- Most often acute pain
- The cause-effect relationship is usually obvious
- Normal neurological exam
- Treatment is standardised
- From somatic or visceral nociceptors

# SOMATIC

- Nociceptors in bone, joint, muscle, skin
- Presumably from continuous tissue injury
- Usually well-localised and severe
- Respond well to usual analgesics

# VISCERAL

- Nociceptors in internal organs
- Different nervous system - autonomic
- Poorly localised, dull, aching pain
- Often referred to dermatomes
- Associated with other unpleasant symptoms like nausea, bloating
- Usually responds to normal analgesics
- Buscopan can help in some instances



# NEUROPATHIC PAIN

- Most often chronic pain
- Due to a lesion of the neurological system
- Often baseline pain with acute crises
- Linked with CNS viral infections
- May not respond well to usual analgesia

# MIXED PAIN

- Nociceptive + Neuropathic (+/-  
Psychogenic)
- e.g. Cancer or HIV
- Treatment requires a broader approach

# PSYCHOGENIC PAIN

- Diagnosis of exclusion - eliminate all functional causes before considering this diagnosis
- There is a complex interaction between psychological state and somatic input
- Usually responds to treatment of underlying psychological disease

# Myths

- Analgesia promotes addiction
- Withhold in abdo pain
- Neonates do not feel pain
- Old people suffer less
- Drug addicts do not need analgesia

# Clinical Evaluation

- Photo of woman with knife in face

# SOCRATES

- **Site** - location of the pain
- **Onset** - when, how fast
- **Cause** - what the patient thinks is causing it
- **Radiation** - where does the pain radiate to
- **Aggravating and relieving factors**
- **Type** - e.g stabbing, burning, cramping, spasmodic
- **Evolution** - coming and going, getting worse, moving location
- **Severity** - try to define with a severity scale

# SEVERITY SCALES

- Self-assessment of pain by the patient
  - Numeric (0 to 10)
  - Visual analogue scale

NO PAIN



WORST PAIN EVER

# CLINICAL EXAMINATION

- Of painful area or organ system
- Signs of underlying disease
- Review of Systems
- Associated signs (fever, weight loss)



# 8y L) FOOSH



Radiographer will need to move the arm

Probably needs manipulation under sedation = NPO

Distressed child = difficult to do procedures (e.g. IV access)

# 8y L) FOOSH

- Non-pharm

- Splint/backslab
- Sling
- Parent
- Distraction, etc



- Pharm

- IN Fentanyl 2.5mcg/kg
- IV opiate e.g. Morphine 0.1mg/kg

# 3y head v. steps



Potential traumatic brain injury - needs a neuro exam.

Wound needs irrigation/exploration.

Child appears happy now but easy to lose cooperation.

# 3y head v. steps



- Non-pharm
  - Parent / distraction, etc
- Pharm
  - Topical anaesthesia
    - ALA gel 0.1 ml/kg.  
(adrenaline/lignocaine/amethocaine)
    - EMLA or AnGel applied to the wound  
(most effective on limb wounds)
  - Local anaesthesia
  - Oral Paracetamol

# 15y, abdo pain



It is more difficult to accurately assess level of pain in intellectually-disabled patients (children and adults).

Likely to have had extensive medical contact previously.

Adult size and strength.

18m, otitis media



Mum gave him panadol 2 hours ago but 30 minutes later he vomited.

# 18m, otitis media

- Non-pharm:
  - Not too many helpful options
- Pharm:
  - Paracetamol 15mg/kg qid
  - Ibuprofen 10mg/kg tds
  - ‘Painstop’ – Paracetamol + codeine
  - If vomits within 20 mins, repeat dose.

