Managing Pain in the Elderly

Medicine Review Course 2016
23rd July 2016
Dr. Lee Jer En
Ng Teng Fong General Hospital
Department of Medicine, Geriatrics Medicine
Outline

Changes in Aging

Assessment of pain in Older Adults

Commonly used medications and their Considerations
Pathophysiology of Pain
Changes in Pain Perception in Elderly
Clinical Relevance of Changes

• Relationship between experimental pain and aging mixed

• Clinical correlation & Meta-analysis¹
  • Pain threshold increase with age
  • Pain tolerance decrease with age
    • Conditioned pain modulation (DNIC)
      • Decrease
      • Facilitation

Measuring Pain in Older Adults
Pain Scales

- NRS
- VAS
- Faces
  - Wong-Baker
- Faces Pain Scale (revised)
Non-verbal scales

- Many scales available

<table>
<thead>
<tr>
<th>Pain Assessment in Advanced Dementia (PAINAD) Scale</th>
<th>Items*</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative vocalization</td>
<td>None</td>
<td>Occasional moan or groan. Low-level speech with a negative or disapproving quality.</td>
<td>Repeated troubled calling out. Loud moaning or groaning. Crying.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consolability</td>
<td>No need to console</td>
<td>Distracted or reassured by voice or touch.</td>
<td>Unable to console, distract or reassure.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Non-specific

Managing positive behavioral Pain Screen

• Search for and treat painful pathology
• Re-evaluate pain
• Persistent pain behaviours
  • Search for other causes
  • Manage possible causes
• Analgesic trial
Pain & Agitation

• Antipsychotics have poor risk:benefit
  • No longer 1st line

• Evidence of improvement in agitation with analgesia\(^1\) (Nursing home)
  • Restlessness
  • Pacing
  • Request for attention
  • Repetitive sentences
  • Complaining
  • Negativism
  • Cursing and verbal aggression

Pain in Institutions – Difficulties in Accurate Assessment

- Patient Factors
  - Increase threshold
  - Decrease tolerance
  - Cognitive Impairment

- System Factors
  - Correct instrument
  - Incident / rest pain
  - Segregation of activities
Paracetamol

• 1\textsuperscript{st} line & ongoing
  • Good safety profile
  • ? Effective\textsuperscript{1,2}

• Dose related response
  • 4 gm /24 hours
  • “hidden” sources

• Ceiling effect\textsuperscript{3}

• Caution in hepatic insufficiency, alcoholics & malnourishment

Anarex – Paracetamol / Orphenadrine

• Anticholinergic – Antispasmodic
  • Central atropine like
  • Euphrogenic / Analgesic

• Short term use
  • Withdrawal
  • monitoring

• Evidence for efficacy is sparse – most trials > 30 years ago

• Evidence for efficacy is sparse – most trials > 30 years ago

• Strong evidence of harm
  • Delirium
  • Constipation / ARU
  • Torsades de pointes
    • Caution in cardiac patients

NSAIDs & COX-2 Inhibitors

- Needs careful considerations
  - Comorbidities
  - Concomitant medications
  - ¼ of drug related hospitalization¹
- Risks
  - GI bleeding (NSAIDs)
  - Renal toxicity
  - CV risk
- Gastroprotection

- Topical NSAIDs
  - Some efficacy in persistent pain
  - Minimal systemic absorption²
  - Safer option³

Tramadol

• Multimodal
  • μ, serotonin, norepinephrine receptors
  • M1 - 200 x affinity
  • CYP2D6 – polymorphism not well characterized in local population

• Delirium
  • Subacute presentation
  • Dose dependent

• Hyponatremia
  • Elderly, musculoskeletal, overdose, concomitant drugs
  • 4.6/10,000 person month

• Hypoglycemia
  • French case reports
  • 7/10,000 per year
  • 1st 30 days

Codeine

- Prodrug
  - CYP2D6 – polymorphism\(^1\)
  - No local data

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Slow metabolisers</th>
<th>Ultra-fast metabolisers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western European</td>
<td>8-10%</td>
<td>1-4%</td>
</tr>
<tr>
<td>Southern European</td>
<td>7-10%</td>
<td></td>
</tr>
<tr>
<td>African</td>
<td>0-20%</td>
<td>5-30%</td>
</tr>
<tr>
<td>Eastern Asian</td>
<td>0-1%</td>
<td>Up to 20%</td>
</tr>
<tr>
<td>Arabian</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Falls & Fractures\(^3\)
  - Worse in codeine combinations
- Constipation
  - Lack of RCT comparison
  - ? Mediated via morphine\(^4\)
- Abdominal pain\(^5\)
  - Post Cholecystectomy
  - Sphincter of Oddi
  - On Pethidine\(^6\) & Naloxone

Buprenorphine

• Subutex\(^1\) - "bad reputation"

• Transdermal patches\(^2\)
  • Efficacious – in elderly
  • Comparable side effects – compared with younger population
  • Convenient – weekly dosing

• Less GI side effects\(^3\)

• Less risk of respiratory depression\(^4\)

• Can be considered in renal impairment\(^5\)

Tapentadol

- Overcome limitations of tramadol\(^1\)
  - Higher potency
  - Not dependent on liver metabolism
  - \(\mu\), norepinephrine receptors but not serotonin
  - No QTc prolongation

- Elderly > 65 years represented in phase III trials\(^2\)-\(^5\)
  - \(\approx 25\%
  - Better GI side effect than oxycodone\(^6\)
  - Comparable CNS effects – risk of falls

Summary

Changes in older people in pain perception and physiology

Need for proper assessment and tools in non-verbal population
- Consider undiagnosed pain in BPSD / Agitation

Considerations in some of the common analgesia
- Don’t prescribe Anarex in older person

Remember multimodal (including non-pharmacological measures)
- Advice ADR when initiating / escalating opioids