Complex Cases in Pain Management
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Disclosures
Speakers Bureau: Allergan; Pernix
Objectives

- Describe the pain pathways
- Define the concept of multimodal pain management
- Evaluate complex case studies in pain management

What is Pain?

- Pain is a complicated process that involves an intricate interplay of chemicals and signaling in the central nervous system.” Sean Mackey, MD
- “An unpleasant sensory or emotional experience associated with actual or potential tissue damage or described in terms of such damage.” IASP
- “Whatever the experiencing person says it is, existing whenever he/she says it does.” McCaffery, RN
Institute of Medicine Report

- Chronic pain affects 100 millions US adults
- #1 reason people are out of work
- It is the leading reason that people seek medical attention, costing the nation upwards of $635 billion annually—more than heart disease, cancer, and diabetes combined
- Chronic pain is the most universal form of human stress (Turk, 2013)

Basic Pain Terminology

PAIN CLASSIFICATIONS

**ACUTE**
- Short Duration
- Recent Onset
- Transient
- Known Causality

**CHRONIC**
- Duration >3 months
- Persistent/Recurrent
- Outlasts Protective Benefit
- Unknown Causality

**BREAKTHROUGH/FLARE-UP**
- Unpredictable
- Fear Factor
- Multi-causality
Basic Pain Terminology

- Nociceptive
  - Somatic
  - Visceral

- Mixed Pain

- Neuropathic
  - Centrally Generated
  - Peripherally Generated

Pain Pathways

- Ascending pain pathway
- Injury in periphery > nociceptors
- Aδ and C fibers > dorsal horn
- Ascending spinohalamic tracts > brain
- Insula, amygdala, prefrontal cortex, anterior cingulate cortex, supplemental motor area, hypothalamus
Mr. Smith

- Mr. Smith, 48 y/o male w/chronic LBP and chronic opioid use

- Referred to you b/c worsening pain, decrease in functionality and steady increase in opioid use

- He continues to work, but had to reduce to less than full-time

Challenges in Assessment

- When the patient is medically complicated
- Language barriers
- Fear, knowledge, expectations

- When there is prior exposures (opioids, benzodiazepines, muscle relaxants, etc.)
- When there is a substance abuse history
- When the patient has chronic pain

- “Difficult” personality
- Co-dependence
- Secondary gain
Mr. Smith

- O – back pain began about 5 years ago, when he was lifting a heavy box, and heard a “pop” in his back
- L – axial low back, just right of midline
- D – 5 years, with progression of muscle spasm and decrease in exercise past 6-12 months
- C – achy, cramp pain with occasional sharp focal pain
- A – stress, standing, sitting, lifting
- A – worsening constipation, low libido, mild depression
- R – stress reduction, lying down, medications (opioids & NSAIDs)
- T – gabapentin 600 mg tid (could not tolerate higher dosing) w/o efficacy, Celebrex 100 mg bid (developed HTN, and was placed on low-dose ASA given is risk factors and family hx of heart disease), hydrocodone/acetaminophen 10/325 mg 6-8 tabs/d, massage, PT

Mr. Smith (cont’d)

- History:
  - HTN, chronic LBP, mild depression
  - Arthroscopic shoulder surgery 5 years ago (took Vicodin 2 days)
  - Moderate alcohol consumption (2-3 beers a night), no tobacco, no other drugs
  - Married, with a 10 year old daughter

- Diagnostics:
  - Flex/Ext lumbar spine films 5 years ago when he first “injured” his back. NL for age
Mr. Smith (cont’d)

- Exam: pulse 78 regular, 147/82
- A&Ox3, appropriately groomed, bright affect, good eye contact, wincing/grimacing with movement
- CV: RRR, strong peripheral pulses
- Lungs: clear
- Abd: soft, nondistended
- MSK: 5/5 motor strength bilateral UE/LE, functional ROM all joints, slightly +facet loading maneuvers lumbar spine on right, mild lumbar lordosis, +paraspinal lumbar trigger points R>L. Nonantalgic, unassisted gait
- Neurosensory: normal

Multimodal Analgesia: Biopsychosocial Approach

Risk factors for on-going persistent pain, past life experiences, genes

Patient’s belief system, goals, resilience, social support

Complementary
- Acupuncture
- Acupressure
- Massage/heat/cold
- Nutrition counseling PT/OT/TENS

Behavioral Modification
- Psychotherapy, art therapy, benchmark, moderation, distraction, exercise

Medications
- Opioids
- NSAIDS/Tylenol
- Topical analgesics
- Anticonvulsants
- Antidepressants
- Muscle relaxants

Interventions
- Steroid injections
- IV infusions
- Neurolytic blocks
- Regional anesthetics
- Trigger point injections
- Spinal cord stimulators
- IT infusion pumps

Expectations

Secondary gain

Patient’s belief system, goals, resilience, social support
New Recommendations for Opioid Therapy

- FDA 2016: A Proactive Response to Prescription Opioid Abuse
- CDC’s: Proposed 2016 Guideline for Prescribing Opioids for Chronic Pain
  [https://www.federalregister.gov/articles/2015/12/14/2015-31375/proposed-2016-guideline-for-prescribing-opioids-for-chronic-pain](https://www.federalregister.gov/articles/2015/12/14/2015-31375/proposed-2016-guideline-for-prescribing-opioids-for-chronic-pain)
- Consider alternative options first
- Opioids when other options fail
- Start lowest effective dose for shortest duration
- Implementing pain treatment agreements
- Importance of monitoring (UDT, state PDMP)
- Encouraging manufactures to design abuse deterrent products

Monitoring for Compliance & Risk Stratification

- Random drug screening, documenting improved activity levels, PMDP, opiate contracts/treatment agreements
- Risk Stratification – Tools: SOAPP-R, ORT

<table>
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<tr>
<th>Risk Level</th>
<th>Characteristics</th>
<th>Management</th>
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| Low        | • No h/o substance abuse  
             • Minimal/no risk factors | Primary care provider (PCP) |
| Moderate   | • H/o substance abuse (other than rx opioids)  
             • Significant risk factors | PCP comanages with addiction and/or pain specialists |
| High       | • Active substance abuse  
             • H/o rx opioid abuse | Refer to specialist in management of comorbid addition and pain |

(Zacharoff, et al. 2010)
The “4 A’s” Assessed in All Patients on Opiates

- Analgesia
- Activities of Daily Living (functionality)
- Adverse Effects
- Aberrant Behaviors
  - Use despite harm, on the job, martial conflicts
  - Doctor shopping
  - Early refills

Mr. Smith: Assessment

- 48 y/o male with nonspecific LBP w/myofascial spasm
- Manageable constipation r/t increased use of opioids
- Low testosterone r/t chronic opioid use (reason for depression)
- Low libido?
- High risk for:
  - Continued opioid tolerance
  - Worsening depression/isolation
  - Further reduction in activities, socialization
Mr. Smith: Plan

- Discuss multimodal analgesia focusing on a biopsychosocial model, address expectations
- Discussion
  - On-going opioid use, risk stratification (monitoring), 4 A’s, REMS, opioid contract, management of current suspected opioid related SE/withdrawal
- Discussion use of nonopioid analgesics
- Cognitive behavioral therapy/structured, focused PT/acupuncture/guided imagery
- Interventions (eg, TP injections for spasm)
- Additional testing?
- Referrals?

Mr. Smith

- 6 months later he experiences a sharp shooting pain, constant, right leg with one incidence of bladder incontinence; cannot sleep, leave from work

- Repeat assessment
- New questions regarding “red flags”
- Imaging (MRI vs CT)
- Recommendations?
Mr. Smith (cont’d)

- 3 weeks later is scheduled for a L5-S1 decompression
- Concerns about his postoperative pain management
  - Opioid tolerance
  - Catastrophizing
  - Depression
  - Central sensitization?
- Options/recommendation management?
  - Gabapentinoids, nonopioid analgesics, opioid requirements, intra-op infusions, regional anesthetics
- Discharge plan/follow up

Mr. Smith (cont’d)

- Given 2 week supply of medications by surgeon, and scheduled follow up in clinic with you in 2 weeks
- He is calling your office in a week stating that he has run out of oxycodone, and he is not taking gabapentin any longer, feeling that it does not help his pain

Your Plan:
- Discharge from clinic?
- Tell him get meds from surgeon until his scheduled f/u with you?
- ePrescribe additional weeks worth of oxycodone to the pharmacy?
- See back in clinic sooner?
- Other?
Mr. Smith (cont’d)

- See Mr. Smith back in clinic that same day, as an urgent add-on . . .
- Your plan:
  - Discharge from your clinic for none compliance?
  - Review with him the opioid contract/treatment agreement (expectations, etc), repeat stratification assessment (higher risk, additional monitoring), continue with medication management (opioids, nonopioid analgesics)?
  - Wean off of opioids (vs use of buprenorphine), addiction medicine consult?

Mr. Smith (cont’d)

- Over the next 3 months:
  - Mr. Smith continues to call in early for opioid refills
  - He presented to the local ED on one occasion for unmanaged pain
  - He has been noncompliant with your recommendations of nonopioid medications and your counseling about the need for mental health services to better manage his depression and new anxiety
Mr. Smith: Now What?

- "Safely" wean off of opioids
- Refer to Addiction Medicine & Psychiatry?
- Would you continue to see him for pain management w/o opioid therapy?

Discussion

- Chronic pain
- Management acute (postsurgical pain) with chronic pain
- Opioid management
- Opioid misuse +/- frank addiction
- Importance of multimodal pain management and understanding of the biopsychosocial model
Mrs. Smith

- 68 y/o woman with widespread pain as a result of breast cancer that had metastasized into her lymph nodes, vertebrae, her right shoulder, and left hip
- She was referred to the pain center by her oncologist to provide palliative pain relief
- Chief complaint:
  - Radicular low back pain
  - Focal right shoulder & left hip pain
  - Nausea, constipation, poor sleep, depression, extreme fatigue

Mrs. Smith (cont’d)

- O – Onset
- L – Location
- D – Duration of each painful region
- C – Characteristics
- A – Aggravating factors
- A – Associated symptoms
- R – Relieving factors
- T – Treatments, response, side effects
Mrs. Smith: History

- HTN, chronic anemia, depression, metastatic breast cancer, persistent pain
- Mastectomy 5 years ago w/lymph node dissection, bunionectomy 20 years ago
- No alcohol, no tobacco, no other drugs
- Married with a 25 year old daughter, and 2 y/o grandson
- Medications: Lisinopril 20 mg/d, fluoxetine 20 mg/d, fentanyl patch 100 mcg/48hr, daily iron, clonazepam 0.5 mg bid prn, colace and MiraLax
- Diagnostics:
  - PET CT 2 months ago, shows metastatic lesions
  - CBC = anemia

Mrs. Smith (cont’d)

Exam: pulse 68 regular, 130/75
- A&Ox3, appropriately groomed, ill looking, wincing and grimacing with movement
- CV: RRR, strong peripheral pulses
- Lungs: distant
- Abd: soft, nondistended
- MSK: 5/5 motor strength bilateral UE/RLE, 4/5 LLE, functional ROM all joints, pain and guarding with right shoulder movement, slightly +facet loading maneuvers lumbar spine on right, mild lumbar lordosis, +paraspinal lumbar trigger points R>L. Ambulates with a slow gait, using a walker for balance
- Neurosensory: normal sensation throughout to light touch, no neural impingement signs identified
Mrs. Smith (cont’d)

Assessment:
- 68 y/o woman with widespread pain as a result of breast cancer that had metastasized into her lymph nodes, vertebrae, her right shoulder, and left hip. Her care is now palliative, she has less than 6 months to live
- Her worse pain is L hip/radicular L4, mild to moderate focal low back L>R muscle spasm, focal right should pain with guarding
- She is opioid tolerant with dose limiting side effects of worsening constipation, nausea, and sedation
- Additionally she struggles with depression, occasional anxiety, poor sleep chronic fatigue r/t anemia of chronic disease
**Mrs. Smith: Assessment**

- 68 y/o females with widespread pain as a result of breast cancer that had metastasized into her lymph nodes, vertebrae, her right shoulder, and left hip. Her care is now palliative, she has less than 6 months to live.

- Initial thoughts/concerns?
- Risk for...?
  - Failure to thrive
  - Worsening pain, depression, social isolation
  - Opioid misuse, side effects
  - Other

**Mrs. Smith: Plan**

- Discuss multimodal analgesia focusing on a biopsychosocial model, address expectations
- Discussion
  - On-going opioid use, risk stratification (monitoring), 4 A’s, REMS, opioid contract, management of current suspected opioid related SE/withdrawal
- Discussion use of nonopioid analgesics
- Cognitive behavioral therapy/structured, focused PT/acupuncture/guided imagery
- Interventions (eg, TP injections for spasm)
- Additional testing?
- Referrals?
Mrs. Smith: Plan (cont’d)

- Gain an understanding about her fears, concerns, expectations. Fear of dying in pain, willing to tolerate more pain to maintain lucidity, interact with family
- Discussion: focus on patient safety and appropriate use of medications. Still important to address keeping medications safe to prevent diversion and misuse. May want to consider IN naloxone
- Nonopioid analgesics: gabapentinoid, SNRI such as venlafaxine (pain, mood, anxiety), NSAIDs/acetaminophen monitoring liver/renal. Maybe reduce Fentanyl patch b/c side effect vs switch to another long-acting, +/- immediate release vs consider IT pump
- Cognitive behavioral therapy/structured, focused PT (strengthening)/acupuncture/guided imagery
- Interventions (eg, TP injections for spasm, L4 SNRB, IT pump placement)
- Additional testing: L-spine MRI (lumbar mass pressing on the L4 nerve root)
- Referrals (palliative care, social work, psychology, nutrition)

Interdisciplinary Care in Pain Management

- The concept of interdisciplinary care refers to a philosophy and process of care that integrates the specialized knowledge of multiple disciplines:
  - Medicine
  - Nursing
  - Physical Therapy
  - Nutritionists
  - Pharmacists
  - Social workers/case managers
  - Psychologist/psychiatrist
Discussion

- Chronic pain
- Management acute (breakthrough pain) with persistent pain
- Opioid management
- Medication side effects, special focus on opioid SE
- Importance of multimodal and interdisciplinary pain management and chronic disease
- Palliative care

References

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