Acute pain in the midst of cancer therapy

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Objectives

- Identify inciting factors
- Discuss aspects of management
- Pediatric highlights
Cancer pain and opioids

- Majority of persons (adults and children) suffer from pain
- Opioids play an inevitable role at some point in one’s disease evolution and cancer therapy
- Opioid related relief is seldom all or nothing
- Need to balance analgesia versus toxicity – when it tips towards toxicity…
  - ‘Opioid poorly-responsive pain’
Possible differentials of ‘poor responders’

- Cancer-related pain
  - Progression
  - Sequelae (i.e. neuropathy, skin ulceration, muscle pain) known to be less responsive to systemic opioids or opioid monotherapy
- Psychology/spiritual pain related to the cancer experience
- Opioid pharmacology/technical problems
- Non-cancer pain
- Other psychological problems
Management strategies - bird’s eye view

**Non-Opioids**
- Acetaminophen
- NSAIDS

**Opioids**
- Tramadol*
- Morphine

**4 WHO-Principles**
“By the clock”

**Invasive Approaches**
Palliative radiation
Regional anesthesia
Neuraxial anesthesia
- Epidural or intrathecal
- Nerve blocks
- Neurolytic blocks

**Integrative Therapies**
- Massage
- Distraction
- Deep Breathing
- Biofeedback
- Aromatherapy
- Hypnosis

**Psychology**
- CBT

**Rehabilitation**
- Exercise
- Physical therapy
- Sleep Hygiene
- Occupational Therapy
- Child Life

**Adjuvants**
- Alpha-agonist
- Gabapentinoids
- TCA/Antidepressants
- NMDA-Antagonists
- Na-channel blockers

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Management strategies

- Initial steps
  - Non-opioids
  - Maximize single opioid until change is required
  - Treat opioid toxicities aggressively and creatively

Non-Opioids
- Acetaminophen
- NSAIDS

Opioids
- Tramadol*
- Morphine
4 WHO-Principles
"By the clock"
Management strategies

• Next steps
  • Non-pharmacologic strategies
  • Utilize adjuvant analgesics

Integrative Therapies
- Massage
- Distraction
- Deep Breathing
- Biofeedback
- Aromatherapy
- Hypnosis

Psychology
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Adjuvants
- Alpha-agonist
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- Na-channel blockers
Special consideration

- Breakthrough pain
  - Incidence: more than half for both children and adults
  - Which route to pursue?
    - PCA - limited to patient location?
Special consideration

• Procedural pain
  • Benzodiazepine, opioid, Na-channel blocker
  • 4 ‘must haves’
  • Nitrous oxide
  • Creative ‘palliative’ home infusions
Treating Chronic Pain in Cancer Survivors: Diagnose and Rehabilitate

Sean Smith MD
Assistant Professor, Michigan Medicine
Medical Director, Cancer Rehabilitation
Disclosures

• None
Outline

• Impact of chronic pain in cancer survivors
• Opioid prescribing for chronic pain
• Diagnosing the problem
• Case example
Chronic Pain in Cancer Patients

- Chronic pain is due to treatment and/or direct tumor damage
- Chronic pain alters mechanics/function, leads to more pain
- Pain associated with fatigue, anxiety, sleep deficits, distress

Risk Factors for Pain

- Pre-cancer pain
- Poor coping mechanisms/social support
- Psychosocial distress
- Increased number of surgeries
- Poor sleep
- Radiation
- Surgery
Pain

Fatigue

Depression

Anxiety
So What Can Treat Chronic Pain?

• Not one pill.
• Probably not one shot.
• Probably not one physical therapy Rx.

• “Cure it first. Treat it second.”

Pain Comes From Something!

[Image of a pain diagram with various highlighted areas indicating pain locations]

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Breast Cancer

- Myofascial
- RTC/etc
- Pec dysfunction
- Edema, plexopathy, radic, etc
- Axillary web
- Synovitis
- Rib pain, notalgia paresthetica
- Trigger finger

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Aim at a Target

• Pain management requires setting expectations
• What are YOU treating?
• What are your options if the Plan A fails?
• What does the patient want?
• Are the patient’s expectations reasonable?
Opioid Prescribing

- Low risk of abuse with cancer pain
- High risk of dependence for non-cancer pain
- Risk of overdose/death, constipation, fatigue, hypotension, immunosuppression, hyperalgesia, and more
- Not shown to reduce pain or improve function in chronic, non-cancer pain
Non-Opioid Pharmacologic Analgesia

- What about other medications?
- What is your plan?
- What are their expectations?
Will a Pill Fix This?
Rehabilitation Medicine Paradigm

- Multidisciplinary approach that:
  - Thoroughly evaluates for cancer- and non-cancer related causes of pain
  - Reduces symptom burden
  - Focuses on function
  - Uses a biopsychosocial model to diagnose/treat emotional contributors
Rehabilitation Team

- Physiatrist (PM&R physician)
- PT
- OT (often treat lymphedema)
- Speech-pathology (includes memory/cog)
- Neuropsych
When Do You Refer to PM&R?

- Unsure about diagnosis
- Need medical management, including procedures
- Coordinating multiple specialties
- Did not get better with PT (etc) referral
Case Example

• 51 year old woman with a history of stage II breast cancer, ER positive, treated 2.5 years ago with:
  – Mastectomy with ALND
  – AC-T
  – Radiation, 66.5 Gy in 1.9 Gy fractions

• Has right shoulder, chest, arm pain. This began during treatment, has worsened over time
Physical Exam

- **Shoulder**: positive Hawkins test, pain with overhead movements. Tight/tender upper trapezius, SCM. Sore rhomboids
- **Chest**: moving shoulder causes pain to radiate anteriorly into the chest. Tight pec. Tender along sixth rib, and Tinel’s sign radiates around anteriorly
- **Arm**: Obvious stage II lymphedema, not wrapped. Skin is red.
Myofascial Example

RTC/etc

Pec dysfunction

Edema

Rib pain
Diagnoses

• **Shoulder**: rotator cuff impingement, myofascial pain

• **Chest**: pec spasm, scapulothoracic bursitis, intercostal neuralgia

• **Arm**: lymphedema, probably cellulitis
Is a Pill Going to Fix This?

Myofascial

RTC/etc

Pec dysfunction

Edema

Rib pain
Pec Shortening

Tight upper trapezius and levator scapular

Weak middle trapezius, lower trapezius and serratus anterior

Weak deep neck flexors

Tight SCM and pectoralis
Treatment

• Shoulder:
  – Home exercise program, PT. If this fails, steroid injection PRN.

• Chest:
  – Ultrasound-guided scapulothoracic bursa or intercostal blocks; depends on results of PT.

• Arm:
  – Antibiotics, OT for lymphedema treatment, garment. Education about skin care.
Summary

- Patients without evidence of disease do not have cancer-related pain
- They often have several pain generators compounded by psychosocial distress
- Pain management should have an anatomic approach
- Multi-modal rehabilitation is often needed to restore function and quality of life
Thank you!
Pain Management-As End of Life Nears
Michigan Cancer Consortium-Annual Meeting

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Pain Assessment

- Patient’s self-report is the gold standard.
- Use of standardized scales to rate pain severity is a best practice standard.
- Scale will depend on patient:
  - Verbal Rating Scale
  - Wong-Baker FACES pain rating scale
  - FLACC (Faces; Legs; Activity; Cry; Consolability)
  - Edmonton Symptom Assessment System (ESAS)

<table>
<thead>
<tr>
<th>FLACC scale (Face, Legs, Cry, Activity Consolability scale)</th>
<th>Score</th>
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<tbody>
<tr>
<td><strong>Face</strong>&lt;br&gt;0- No particular expression or smile&lt;br&gt;1- Occasionally grimace or frown, withdrawn, disinterested&lt;br&gt;2- Frequent to constant frown, quivering chin, clenched jaw</td>
<td></td>
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<tr>
<td><strong>Legs</strong>&lt;br&gt;0- Normal position or relaxed&lt;br&gt;1- Uneasy, restless, tense&lt;br&gt;2- Kicking or legs drawn up</td>
<td></td>
</tr>
<tr>
<td><strong>Activity</strong>&lt;br&gt;0- Lying quietly, normal position, moves easily&lt;br&gt;1- Squirming, shifting back and forth, tense&lt;br&gt;2- Arched, rigid, or jerking</td>
<td></td>
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<tr>
<td><strong>Cry</strong>&lt;br&gt;0- No cry (awake or asleep)&lt;br&gt;1- Moans or whimper; occasional complaint&lt;br&gt;2- Crying steadily, screams or sobs, frequent complaints</td>
<td></td>
</tr>
<tr>
<td><strong>Consolability</strong>&lt;br&gt;0- Content, relaxed&lt;br&gt;1- Reassured by occasional touching, hugging, or being talked to; distractible&lt;br&gt;2- Difficult to console or comfort</td>
<td></td>
</tr>
<tr>
<td>Total score (0-10)</td>
<td></td>
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Pain Assessment Continued

• Nonverbal indicators of pain
  – Facial tension, grimace/brow furrow, wincing
  – Bracing/tightening
  – Vocalization, crying, moaning
  – Restlessness

• Observe incident pain
Pain Management-WHO ladder

- Same approach may be used for life limiting illnesses
- Level and type of pain should guide intervention
- Non-pharmacological strategies and adjuvants should be considered at each step
Treatment Approach

• Identify source and mechanism
• Treat underlying disease if possible
• Select therapy based on mechanism/cause and severity
• **Use short acting medications for acute pain-titrate to relief**
• Consider available routes*
• Anticipate side effects
  – Sedation-may be a side effect, or dying process
Principles of Opioid Prescribing

• Choose the right drug for the level of pain, clinical situation, mechanism and available routes for administration
• Titrate up 25-50% per day for mild-moderate pain, 50-100% per day for moderate-severe pain
  — No Ceiling dose
  — Can use shorter time frame for titration inpatient and at end of life
• Schedule “around the clock” doses in addition to as needed doses for ongoing sources of pain
• Anticipate and prevent side effects
• Use appropriate (and dual-purposed) adjuvant medication
• A simple regimen is best
References

- American Academy of Hospice and Palliative Medicine, Essential Practices- Unipac 3, 2017
- American Academy of Hospice and Palliative Medicine, UNIPAC 3, 2008