

Metastatic Pain Management

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Disclosures

- Dr. Henning discloses his employment as
 - Area Medical Director for VistaCare
- VistaCare has provided commercial support for this activity
- Palliative medicine frequently involves the use of medications for “off-label” purposes. Such use may be discussed during this presentation.

In the Land of Pain

“Pain finds its way everywhere, into my vision, my feelings, my sense of judgment; it’s an infiltration”

“My poor carcass is hollowed out...pain echoes through it as a voice echoes in a house without furniture or curtains. There are days, long days, when the only part of me that’s alive is my pain”

“You have to die so many times before you die...”

Alphonse Daudet



Objectives

- ◆ Discuss basic principles of managing cancer pain
- ◆ Understand the role of opioids in metastatic pain
- ◆ Discuss alternative therapies in metastatic pain
 - ◆ NSAIDs
 - ◆ Steroids
 - ◆ Calcitonin
 - ◆ Bisphosphonates
 - ◆ Strontium-89
 - ◆ External beam radiation

Case 1: Female Lung Cancer Patient

- ◆ 77 year-old female with stage IV NSCLC on hospice care
- ◆ Pain in right hip, leg, ankle, shoulders, head
- ◆ Fears another pathologic fracture
- ◆ Reluctant to take medications
 - ◆ “reactions”, sedation, trouble swallowing
- ◆ ROS: fatigue, nausea, SOB, decreased appetite constipation

Case 1: Female Lung Cancer Patient

- ◆ PMHx: Lung Cancer, diagnosed when she suffered a pathologic right wrist fracture after a fall.
 - Osteoporosis
 - Hypertension
 - Chronic constipation

Case 1: Female Lung Cancer Patient

- ◆ Medications: Percodan® 1 po q 4 hours prn, clonidine, diazepam, promethazine prn, senna rarely.
 - Dexamethasone was prescribed by attending, she refused fearing bone loss.
- ◆ Social: Husband abused Lortab® elixir in past. She fears addiction.

Case 1: Female Lung Cancer Patient

- PEx: Anxious appearing. Decreased breath sounds on left. Tender to palpation in right hip, shoulders. PPS: 50.

Painful Bony Metastases Patient

Discussion, Ideas?

Lung Cancer Patient -- My Plan

- ◆ Kadian® 20 mg po q day on applesauce
- ◆ Percodan® for breakthrough pain until gone
- ◆ Senna and promethazine in suspension
- ◆ IDG team to address anxiety, engender trust

Lung Cancer Patient Follow-up

- ◆ Kadian® caused nausea, took one dose
- ◆ Repeat home visit. Educated on opioid side effects. Reglan® 5 mg tid routine. Try Kadian® again.

Cancer Pain Principles

- ◆ “...cancer pain can be relieved in more than 70% of patients using a simple opioid-based regimen”
- ◆ Optimize opioid regimen
- ◆ Must balance analgesia and opioid side effects

Opioid Strategies in Metastatic Cancer Pain

- ◆ Opioid Rotation
- ◆ Aggressive side effect management
- ◆ Regional anesthesia
- ◆ Nonpharmacologic approaches
- ◆ Adjuvant drugs

NSAIDs

- ◆ Anti-inflammatory and analgesic effects
- ◆ NSAIDs are often opioid-sparing
- ◆ GI bleeding risk is high, particularly in elderly, sick patients
- ◆ Consider non-acetylated salicylate – choline magnesium trisalicylate (Trilisate®)

NSAIDs and GI bleeding

- ◆ Individual risk is low (1.3% of rheumatoid arthritis patients on NSAID experience major GI event per year).
- ◆ Hospitalized patients with NSAID induced GI bleeding have a 5-10% mortality
- ◆ 16,500 NSAID-related deaths per year
- ◆ Age is very important risk factor

Preventing NSAID induced GI side effects

- Omeprazole is more effective than ranitidine
- Omeprazole is slightly more effective than misoprostol and better tolerated*
- Omeprazole 20 mg as effective as 40 mg and better tolerated
- Number needed to treat to prevent GI adverse event is as low as 3 (local hospital P&T committee)

*Hawkey CJ, et al. NEJM 1998;338:727-34.

Cox-2 inhibitors and GI side effects

- Celecoxib (Celebrex®) likely has lower risk of GI side effects than traditional NSAIDs
- Celecoxib has “black-box” warning re: increased risk of cardiovascular death
- Number needed to treat to prevent GI side effects is between 40-100*

*Laine L. J Pain Symptom Manage. 2002;23:S5-10

Steroids and metastatic bone pain

- Useful for bone and neuropathic pain
- Dexamethasone has lower mineralocorticoid effect compared with prednisone
- Metastatic spinal cord compression – consider high dose (100 mg/day) then add opioids and/or XRT then taper
- Painful bony lesions can respond to lower doses (4-20 mg/day)

Steroids and metastatic bone pain

- Non-pain benefits: increased appetite, anti-emetic, improves malaise and overall quality of life
- Long-term use may increase risk of PUD
- Taper to lowest effective dose
- If prognosis and dose is sufficient, consider gastro protective drug

Calcitonin and metastatic bone pain

- ◆ Noted in 80s and 90s to be effective for pain from bone metastases
- ◆ Off-label use
- ◆ Intranasal or subcutaneous delivery
- ◆ 200 IU in nostril q day, alternating nostrils
- ◆ Consider increasing the dose, monitoring calcium, phosphorus levels

Bisphosphonates

- ◆ Bisphosphonates inhibit osteoclast activity, reduce bone resorption
- ◆ Given IV q 3 weeks

Pamidronate (Aredia®)

- Aredia is useful in reducing bone pain in patients with breast cancer and multiple myeloma
- Reduces skeletal morbidity (pathologic fractures, need for bone radiation, spinal cord compression and hypercalcemia)
- Adverse effects include hypocalcemia and a flu-like syndrome
- Nephrotoxicity can occur with rapid infusion

Zoledronic acid (Zometa®)

- Zometa® is useful for reducing bone pain in multiple myeloma, breast, prostate and lung cancer
- Also reduces skeletal morbidity
- More convenient than Aredia® (more rapid infusion)
- No dose adjustment needed in mild-moderate renal failure

Radiopharmaceuticals

- ◆ Strontium-89
- ◆ Calcium analog taken up by osteoblasts that emits a β particle
- ◆ Up to 80% of patients achieve some pain relief
- ◆ Can cause a crescendo, then decrescendo pain requiring opioid adjustment

Strontium-89

- ◆ Indicated for moderate to severe pain from widespread osteoblastic metastatic pain
- ◆ Often improves quality of life
- ◆ May also decrease tumor burden and prolong life (making the patient ineligible for hospice care)
- ◆ Very Expensive

Case 2: Male Lung Cancer Patient

- ◆ 75 year-old male with stage IV NSCLC
 - Two tumors: one in LLL (2.5 cm) and LUL (6.5 cm) and mediastinal disease
 - Treated with “high grade” palliative XRT (45GY in 18 fractions)
 - Symptoms of hemoptysis and pain improved
- ◆ Admitted to hospice several months later with weight loss and decreased performance status

Case 2: Male Lung Cancer Patient

- ◆ Hospice Admission Meds
 - Darvocet N-100® 1 po q 6 hrs prn
 - Ibuprofen 800 mg po bid
 - Ibuprofen 200 mg po q 4-6 hrs prn
 - Oxycontin® 10 mg po bid
 - Fentanyl 25 mcg q 72 hrs
 - Endal HD® prn cough

Case 2: Male Lung Cancer Patient

- ◆ Patient lives 45 minutes from town.
- ◆ 1 month later, patient fell and experienced right hip pain. Went to Columbus ER.
- ◆ ER calls hospice nurse. He has a pathologic fracture of right acetabulum.

Case 2: Male Lung Cancer Patient

- ◆ Hospice nurse relates the story
- ◆ He is in pain in ER
- ◆ What do you recommend?

Case 2: Male Lung Cancer Patient

- Patient sent to his local hospital on GIP
- Transferred to Columbus NH to undergo XRT to right acetabulum
- Was given 35 GY in 10 fractions with good pain relief
- Died 2 and ½ months later

External Beam Radiation

- Very effective for metastases at single sites
- Partial/total pain relief and stiffness reduction in 80-90% of cases
- 25% of patients can get complete pain relief
- 40% of patients can get 50% pain relief
- Widespread bony metastases limit usefulness

External Beam Radiation

- ◆ Ensure patient has adequate performance status
 - ◆ Typically PPS 50% or greater
- ◆ Short fractionation courses can be as effective as traditional courses*

*Fine PG Am J Hospice & Palliative Care
2002; 19 (3):166-170

Metastatic Bone Pain Summary

- ◆ Optimize opioid treatment
 - ◆ Anticipate and treat side effects
 - ◆ Consider opioid rotation
- ◆ NSAIDs or steroids can be added
- ◆ Bisphosphonates may be used
- ◆ Strontium-89 may be more appropriate pre-hospice
- ◆ External beam radiation for single metastases