

## Palliative Care in Practice: Strategies for community management and referral insights for Family Physicians | Pearls for practice

Palliative Care Urgencies and Emergencies: An Overview  
Dr. Allison Chabassol

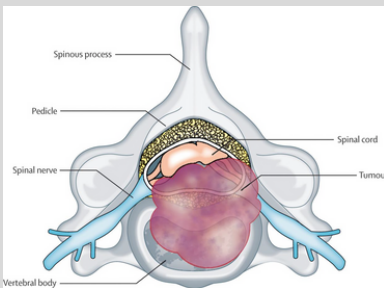


### Palliative Care Key Points

- Palliative care as defined by WHO is.. “an approach that improves the quality of life of patients and their families who are facing problems associated with life-threatening illness. It prevents and relieves suffering through the early identification, correct assessment and treatment of pain and other problems, whether physical, psychosocial or spiritual.”
- Palliative care emergencies can happen in any cancer patient
- Early recognition and intervention can improve outcomes and quality of life.

### Spinal Cord Compression (SCC)

- Compression, indentation or encasement of the thecal sac that surrounds the spinal cord or cauda equina by spinal metastases or locally advanced cancer



### Spinal Cord Compression-Clinical Features

- Pain can be localized or radicular (90-95%)
- Neurological deficits
  - Weakness (~75%) ascending paresthesia or numbness
  - Sensory changes (~50%) 1-5 levels below the compression
  - Autonomic dysfunction (late finding; ~55%) urinary retention is the most common
  - Paraplegia
- \*Change in function with back pain”

### Spinal Cord Compression- Outcomes

- Rapid onset and progression are poor prognostic indicators
- Neurologic status at the time of presentation is most important predictor of neurologic recovery!
  - 70% of ambulatory patients will remain ambulatory
  - 35% of paraparetic patients will regain ability to walk
  - <10% of paraplegic patients will regain ability to walk

### Spinal Cord Compression Prevalence

- Potentially devastating
- Up to 10% of prevalence in cancer patients
- Initial presentation of malignancy in 8-34% of cases
- Most common presentation at thoracic level (60-80%) it can also present at multiple levels (30%)
- Most common malignancies:
  - Lung (16%)
  - Breast (12%)
  - Lymphoma (11%)
  - Unknown primary (11%)
  - Multiple Myeloma (9%)
  - Sarcoma (8%)
  - Prostate (7%)

### Spinal Cord Compression-Assessment

- Careful history
  - pain, function, bowel/bladder
- Comprehensive neurologic exam
  - sensation, strength, reflexes, rectal tone
- URGENT MRI to assess for compression of the thecal sac
  - WHOLE spine imaging given high frequency of compression at multiple levels
  - Sensitivity 93%, specificity 97%

### Spinal Cord Compression-Management

- If suspicious, begin corticosteroids IMMEDIATELY (before MRI) thought to decrease vasogenic edema and risk of spinal cord infarct
- Radiotherapy
- Neurosurgery
- Surgery + Radiotherapy

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### Spinal Cord Compression -Management Radiotherapy

- Mainstay of treatment for malignant SCC
- Typically done in multiple fractions; may consider 1 fraction for pain control if very poor prognosis
- Transient worsening of neurological deficits may be seen secondary to reactive edema (corticosteroids help with this)
- Symptom improvement typically within a few days, but full effect takes 3-4 weeks

#### Spinal Cord Compression Practical Pearls

- For urgent MRI:
  - If current Cross Cancer Institute patient, try paging Radiology on call for MRI through the CCI switchboard
  - Unable to obtain same-day MRI at CCI, worth trying private imaging clinics
  - If otherwise unsuccessful, patient should present to ER
- For urgent radiotherapy:
  - Page Radiation Oncology on call through the CCI switchboard

### Spinal Cord Compression -Management Surgery

- Consider surgical intervention if:
  - Unstable vertebral segment
  - Known radioresistant tumor
  - Clinical progression despite RT Relapse at previously radiated site
  - Tissue diagnosis required
- Not suggested if poor performance status, very short life expectancy, or SCC >72h

### Massive Hemorrhage

- Massive hemorrhage is rare! Less than 2% in palliative care patients
- Potentially very traumatic
- Major arterial bleed – typically >1.5L in 1-2 minutes
- Can be due to direct invasion of a major vessel OR widespread coagulopathy
- May present clinically as a major surface bleed, hemoptysis, hematemesis, rectal bleeding, GU bleeding

### Massive Hemorrhage: Pharmacologic Management

- Have midazolam pre-drawn at the bedside for rapid administration if required
  - Midazolam is a short acting benzodiazepine
  - Onset of action of ~5 mins
  - Mean half life of ~3 hours
  - Sedative, anxiolytic and amnestic effects
- Provides reassurance to caregivers and healthcare providers

### Massive Hemorrhage Practical Pearls

- For patients at home who are at risk of massive hemorrhage:
  - Ensure Homecare is aware
  - Have Homecare set up a subcutaneous site for administration of midazolam if required
  - Provide a prescription for midazolam 5mg pre-filled syringes and have Homecare teach loved ones how to administer
  - Pre-filled syringes are good for 30 days if stored in a dark place are covered by Palliative Blue Cross

### Massive Hemorrhage

- Identify patients at risk:
  - ulcerating neck mass - recurrent hemoptysis
  - underlying coagulopathy
- Keep in mind that episodic low volume bleeding may herald a larger catastrophic bleed
- Sensitively inform and prepare loved ones and staff
- Discontinue anti-platelet agents and anticoagulants
- Have dark towels on hand to minimize visual impact

### Massive Hemorrhage Prevention

- Localized measures (wound management)
- Radiotherapy (lung, skin, vaginal, rectal, urinary tract bleeding)
- Endoscopy (GI, urinary tract, lung)
- IR embolization - Surgery (rarely)
- Systemic measures (Vit. K, vasopressin, somatostatin analogues, antifibrinolytic agents)
  - Tranexamic acid is most common practice

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### Seizures

- Occurs in ~1% of patients with advanced malignancy
- Can occur as a result of intracranial mass (primary or metastasis), metabolic disturbance, infection, hypoxia, treatment-related, etc.
- Incidence is 20-50% in patients with a primary cerebral tumor or cerebral metastases

### Seizures-Practical Pearls

- Most patients present to hospital with their first seizure and will be started on an oral anticonvulsant
- If a patient on an anticonvulsant is no longer able to swallow, switch to an injectable option and continue until end of life
  - Ex: phenobarbital subcutaneously

### Seizures-Management

- Most are self limiting
- Primary prophylaxis is NOT indicated
- Acutely (if >5minutes of seizure activity):
  - Benzodiazepines
  - If status epilepticus, infusion (benzo, anti-convulsant))
- Secondary prophylaxis:
  - Consider available route and potential for interactions (i.e. chemo)
  - Will often start with po first (no agent superior); S/C when unable to swallow
  - Corticosteroids may be useful if brain primary/metastasis

### Superior Vena Cava Syndrome (SVC)

- Previously considered an emergency; now more of an urgency (unless airway obstruction or cerebral edema)
- Collection of signs and symptoms arising from the obstruction of blood flow in the SVC
- Occurs due to direct tumor invasion, external compression of the SVC or thrombus
- 85% of adult cases related to malignancy (lung cancer, non-Hodgkin lymphoma most cases)

### SVC Syndrome -Management

- If airway obstruction or cerebral edema, EMERGENCY; otherwise, urgency
- Elevate head of the bed
- Symptomatic management of dyspnea/pain
- Dexamethasone (though no real evidence)
- Diuretics not overly useful and can decrease preload
- Anticoagulation if thrombus present
- Radiotherapy typically main treatment (symptomatic improvement within 72h)
- Occasionally chemotherapy (SCLC, lymphoma; symptomatic improvement within 7-10 days)
- Endovascular stent – if severe symptoms requiring urgent intervention (symptomatic improvement within 24hours)

### SVC Syndrome- Assessment

- Symptoms:
  - Dyspnea, coughing, congestion, chest pain, dysphagia, head ache/fullness, dizziness, lethargy
  - Worsened by leaning forward
- Signs:
  - Edema of the face, neck, chest, arm
  - Venous dilatation
  - May see orthopnea, tachypnea, cyanosis, Horner's syndrome (rarely)
- Investigations:
  - CXR to r/o more common causes (though often abnormality present)
  - Enhanced CT Chest is gold standard

### SVC Syndrome- Practical Pearls

- If airway compromise, send patient to ER
- Otherwise, call Radiation Oncology on call through CCI switchboard
- If thrombus present, call Hematology on call for guidance and place referral to the Cancer Associated Thrombosis (CAT) Clinic

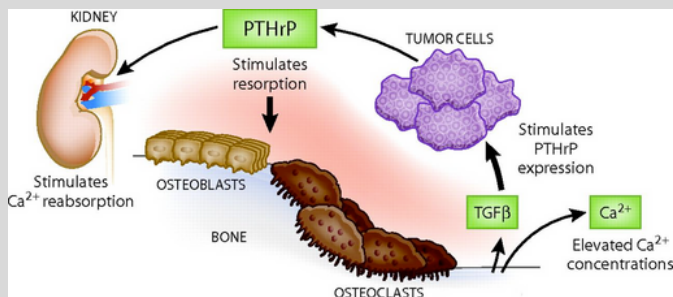
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### Hypercalcemia of Malignancy

- Corrected calcium >2.6mmol/L
- Occurs commonly in advanced malignancy
  - 10-50% of patients
  - Most common in multiple myeloma, squamous cell carcinomas of lung and other organs, as well as breast and renal cell carcinomas
- Indicator of poor prognosis
- Causes:
  - Secretion of PTH related protein by the tumor (80% of hypercalcemia cases)
  - Osteolytic skeletal metastases
  - Increased production of calcitriol



### Hypercalcemia of Malignancy-Management

- Encourage mobilization to decrease skeletal calcium loss
- Low calcium diets are terrible!
- D/C supplements and medications that may exacerbate hypercalcemia
- Calcitonin may be used for rapid reduction of serum Ca<sup>++</sup> (faster onset but shorter duration of action)
- Trial zoledronic acid X 1 dose in resistant hypercalcemia

### Hypercalcemia of Malignancy-Clinical Features

- Lethargy
- Polyuria
- Polydipsia
- Dehydration.
- Anorexia.
- Nausea/vomiting.
- Muscle weakness.
- Confusion
- Constipation

### Hypercalcemia of Malignancy-Assessment

- Bloodwork (if in line with goals of care)
  - Serum calcium + albumin
  - Typically as part of 'delirium' work-up
- Corrected calcium =
  - $[(40 - \text{albumin}) \times 0.02] + [\text{measured serum calcium}]$

### Hypercalcemia of Malignancy-Management

- Identify and treat (if possible) underlying cause
- Consider:
  - Functional status
  - Life expectancy
  - Goals of care
- Mild Asymptomatic Hypercalcemia
  - Monitor and consider hydration
- Mild Symptomatic Hypercalcemia
  - Hydration
  - Repeat BW in 24-48h
  - If calcium has increased or symptoms have worsened, consider pharmacologic treatment with bisphosphonate
- Moderate - Severe Hypercalcemia
  - Hydration
  - Concurrent administration of bisphosphonate
  - Recheck serum calcium in 3-4 days

### Hypercalcemia of Malignancy-Practical Pearls

- Accessing bisphosphonate treatment in the community:
  - Mobile Integrated Healthcare: 1-833-367-2788
  - Private infusion clinics such as Kaye Edmonton IV Clinic or the Cancer Care Infusion Clinic
- Dosing example:
  - Pamidronate 90mg in 500mL normal saline given IV over 2-4 hours
  - Zoledronic acid 4mg in 50mL normal saline given IV over 15-30mins
- Pamidronate is covered by most plans, including Seniors Blue Cross and Palliative Blue Cross
- Zoledronic Acid typically requires special authorization

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### Palliative Sedation

- Uncommon
- 3-10% of palliative patients require palliative sedation
- Incidence varies depending on the setting
  - e.g. less common in the community than in acute care
- The intentional induction of sedation to relieve intractable symptoms and suffering when all other interventions have failed or are not readily available and death is imminent
- Palliative sedation does not shorten life or cause death

### Palliative Sedation

- Most common indications:
  - intractable agitated delirium
  - intractable dyspnea
  - refractory seizing
- Intractable pain is an uncommon indication
- Sedation by continuous midazolam infusion
- Nursing continues to provide regular care
- Scheduled analgesia is still administered

### Palliative Sedation- Practical Pearls

- Involve a Palliative Care specialist if palliative sedation is being considered to ensure the symptom is truly refractory and not simply challenging to manage!
- There is always a Palliative Care MD on call 24/7 for the North Zone (call RAAPID North)

### References and Resources

- [Pallium Palliative Pocketbook, Second Edition \(Pocketbook and App - Pallium Canada\)](#)
- [Palliative care health benefits | Alberta.ca](#)
- [Mobile Integrated Healthcare | Alberta Health Services](#)
- Cross Cancer Institute Switchboard:
  - (780) 432-8771

