Palliative Care Emergencies

Dr Debbie Quinn

Associate Specialist in Palliative Medicine, Isabel Hospice

Factors in dealing with emergencies in palliative care

- The general physical condition of the patient
- Disease status and likely prognosis – informing appropriateness of treatment
- Concomitant pathologies
- The likely effectiveness and toxicity of available treatments
- Patient and carer wishes. ? Relevant advance care plan
- Always importance of calmness, and patient comfort

THERAPEUTIC EMERGENCIES

- Spinal cord compression
- Superior vena cava obstruction
- Hypercalcaemia
- Seizures
- Neutropaenic sepsis
- Severe haemorrhage

Spinal cord compression

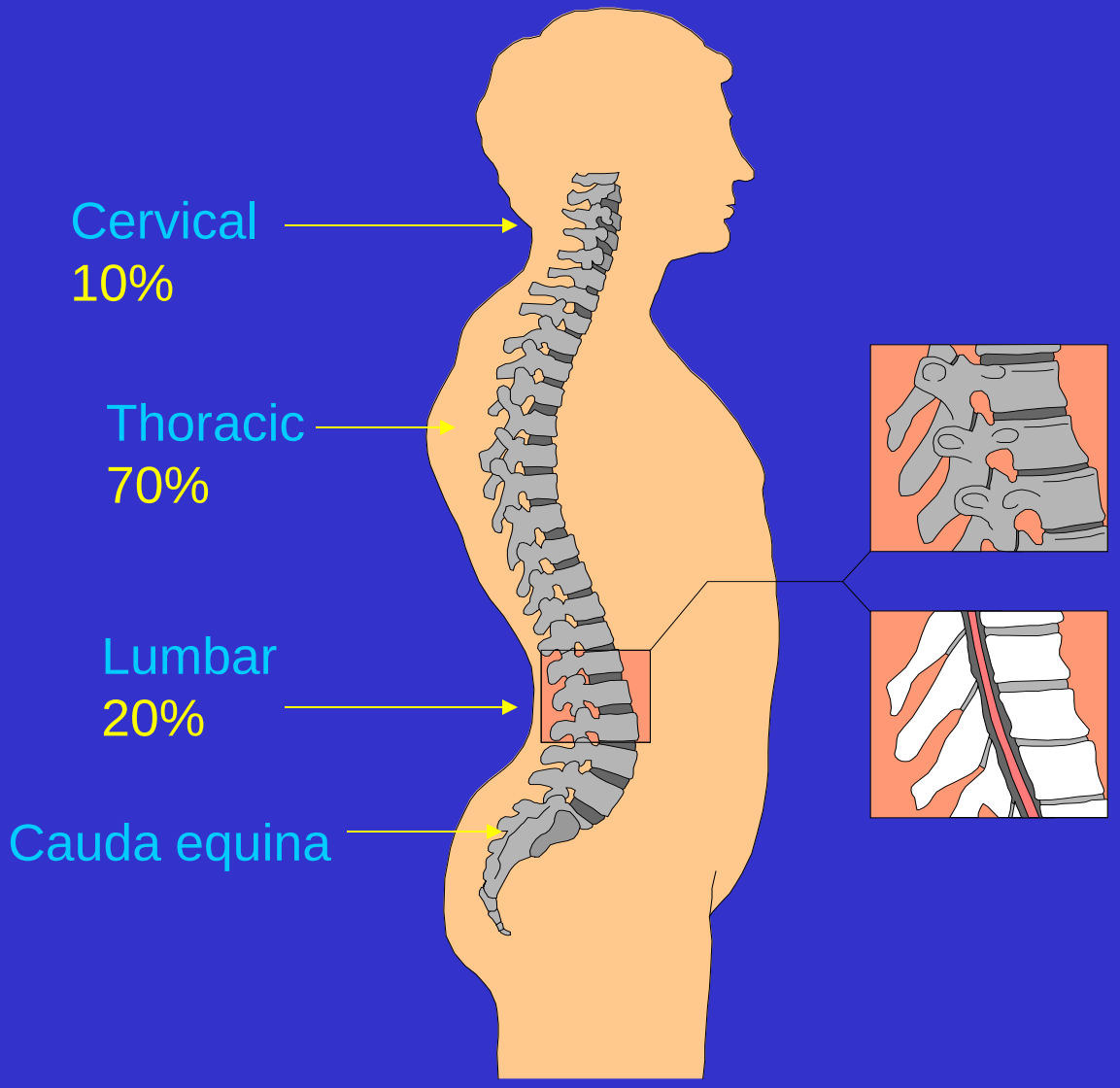
- A major medical emergency
- Functional outcome dependent on the degree of neurological impairment at diagnosis
- If diagnosed too late can lead to permanent paralysis, sensory loss and loss of sphincter control

SPINAL CORD COMPRESSION

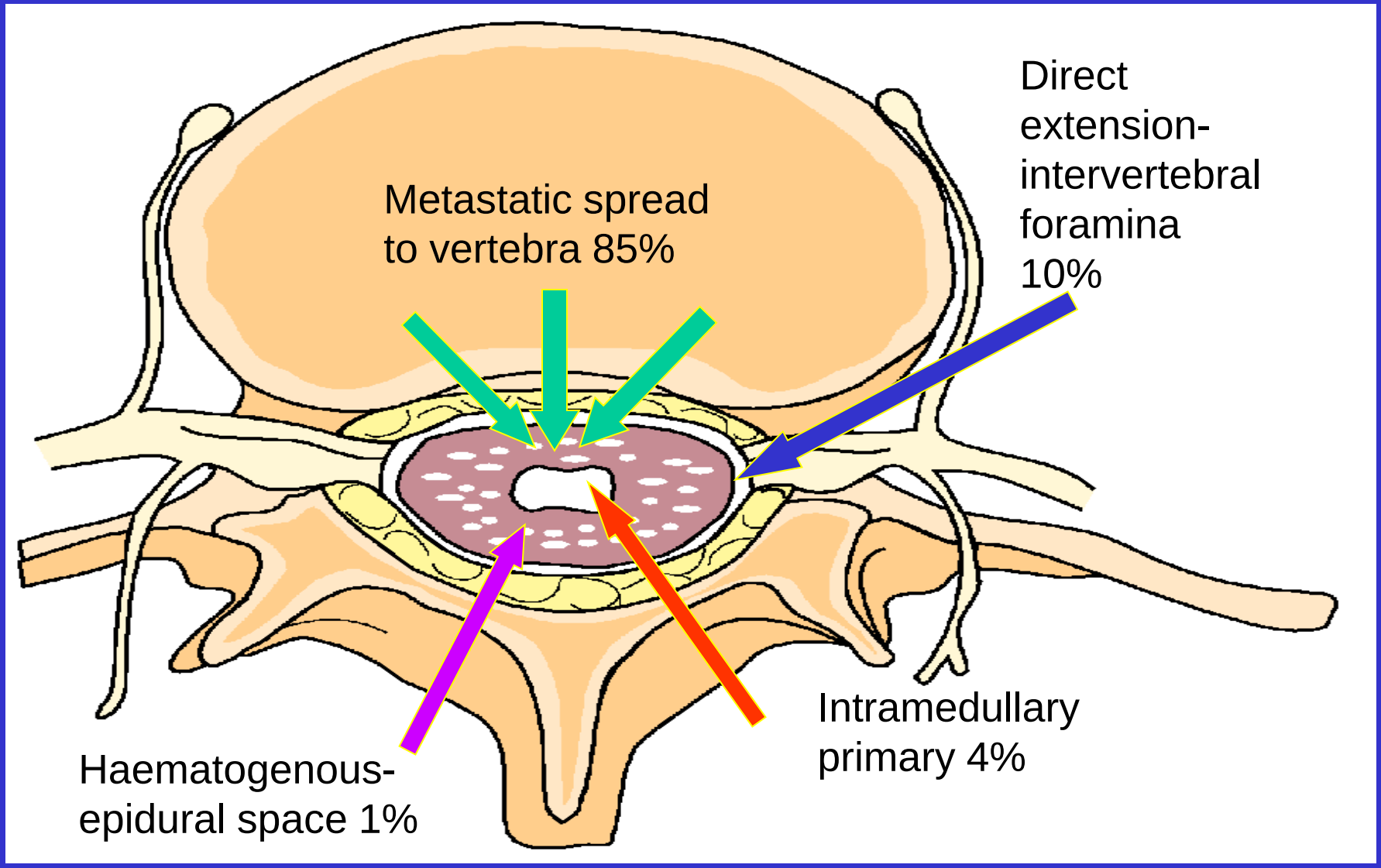
- Incidence about 5% of oncology patients
  - Breast, lung, prostate, lymphoma and myeloma commonest
- Multiple levels in 20%
- Below the level L2 compression is of the cauda equina

- Patients at risk of spinal cord compression should be informed about the condition and encouraged to report early symptoms to their healthcare team urgently

Levels of compression



Aetiology: vertebra and canal



First symptoms vs on diagnosis

Symptom	1st Symptom (%)	At Diagnosis (%)
Back Pain	94	97
Weakness	3	74
Sensory loss	0.5	53
Autonomic dysfunction	0	52

SCC - DIAGNOSIS

HISTORY

- **Pain** 2° vertebral collapse, and radicular pain
  - Unrelieved by lying down
  - Exacerbated by coughing / straining
- Weakness / falls
- Numbness/funny feelings in legs
- Sphincter dysfunction: bladder or bowel

SCC: DIAGNOSIS

CLINICAL FINDINGS

- Sensation: decreased, may be sensory level
- Power: weakness
- Altered tone and reflexes, upgoing plantars
- ↓ rectal sphincter tone
- palpable bladder
- Percussion tenderness

SCC : MANAGEMENT

- MRI is investigation of choice
- Corticosteroids: dexamethasone 16mg/24hrs, commence whilst awaiting investigation – improves functional outcome. Gastroprotection. Monitor for diabetes
- Dexamethasone will need reducing and usually stopping later.
- Nurse flat until spinal and neurological stability known

MRI

Urgent cases

- Symptoms suggestive of spinal metastases (but no neurological symptoms or signs):
  - pain in the thoracic or cervical spine
  - progressive lumbar spinal pain
  - severe unremitting lumbar spinal pain
  - spinal pain aggravated by straining
  - localised spinal tenderness
  - nocturnal spinal pain preventing sleep
- Any of the above – contact oncology team within 24 hours; MRI and treatment planned within 1 week.

Emergency cases

- Neurological symptoms or signs suggestive of cord compression
  - radicular pain
  - limb weakness
  - difficulty walking
  - sensory loss
  - bladder or bowel dysfunction
  - signs of spinal cord or cauda equina compression.
- Emergency – immediate discussion with oncology team and MRI and treatment plan within 24 hours

Management

- Urgent radiotherapy is usual treatment option
- Surgery considered
- Remember to consider short term thromboprophylaxis

Management decisions

- Always important to discuss management decisions with patient +/- family. Occasionally patients may make informed decision not to have treatment.
- If prognosis is very short, investigation and active management may not be appropriate

PROGNOSIS

- Severity of weakness at presentation + speed of onset are most predictive of functional recovery
  - 70% ambulant patients will retain ability to walk
  - Only 5% paraplegic patients will regain ability to walk
- Loss sphincter function bad prognostic sign
- Early diagnosis is key
- Overall 30% patients may survive 1 year

Ongoing care

- Recurrent symptoms at a different spinal level occurr in > 75% at 6 months
- If ongoing disability may need:
  - Rehabilitation
  - Catheter, bowel care, pressure area care
  - Analgesia
  - Psychological support
  - Home adaptations
  - Support for family

George

- 72 years, carcinoma of prostate, bone metastases recently diagnosed
- Few weeks generalised back pain
- Past few days back pain become severe, keeping him awake at night, co-codamol no help
- What would you do?

George

- Ask about any other symptoms
- Talk to oncology team within 24 hours
- MRI scan within the week
- Explain about spinal cord compression symptoms for his awareness whilst awaiting investigation

Grace

- 87 years, advanced carcinoma of breast with bone, liver and lung metastases
- She has ischaemic heart disease and cardiac failure. Also diabetes. Frail.
- Several falls in past 3 weeks and progressively severe upper back pain, worse on lying down and coughing

Grace

- More information from oncology team, already had maximum radiotherapy to some areas of spine.
- If new level of spinal cord compression could have radiotherapy
- Talk with Grace, fully inform about possibility of spinal cord compression and potential management options

Grace

- She decides she would not want further active treatment, and wants to remain in her home
- Therefore no MRI scan
- Steroids and monitor diabetes. Analgesia
- Multidisciplinary approach to management and advanced care planning

Spinal cord compression summary

- Think about if potentially relevant symptoms
- Early diagnosis and rapid investigation and management can transform outcome
- Multi-team approach to care after diagnosis of spinal cord compression

SUPERIOR VENA CAVA OBSTRUCTION

- Extrinsic compression of SVC by mediastinal lymph nodes or tumour in region of right main bronchus, +/- thrombosis of SVC
- Lung cancer 75% of cases
- Lymphoma 15%
- Without treatment can progress leading to death
- Symptoms can be very distressing

Symptoms of SVCO

- Dyspnoea
- Neck + facial swelling
- Trunk + arm swelling
- Sensation of choking
- Fullness in head / headache
- Other symptoms include: dizziness, visual changes, chest pain, cognitive impairment

Signs of SVCO

- Dilated neck veins and veins on anterior chest
- Facial oedema with engorged conjunctivae and periorbital oedema
- Tachypnoea
- Plethora of face
- Cyanosis

Dilated veins

SVCO

Mangement of SVCO

- Consider if investigation and treatment appropriate
- Immediate referral
- Dexamethasone 16mg daily (dose needs monitoring and reducing after treatment)
- CT scan thorax, shows:
  - location and extent of occlusion
  - mechanism of obstruction

Management of SVCO

- Intraluminal metal stent now often treatment of choice:

  Rapid response

  Few adverse events

  Following stent 90% die without recurrent SVCO

- Radiotherapy to mediastinum
- Chemotherapy
  - lymphoma
  - SCLC

Symptomatic treatment SVCO

- Sit up
- Opioids
- Benzodiazepines
- Oxygen
- Psychological support

HYPERCALCAEMIA

- Occurs in 10% patients with cancer
- Poor prognosis – median survival 3-4 months
- 80% cancer patients with ↑ Ca^{2+} survive less than a year
- Treatable – does not always respond
- Untreated – can be distressing, and fatal

Calcium levels

- Hypercalcaemia: Serum corrected Ca^{2+} > 2.6 mmols/l, often mild or no symptoms
- Level > 3.0 mmol/l: significant symptoms usual
- Severity of symptoms often related to rate of increase of calcium
- If untreated corrected Ca^{2+} > 4 mmols/l is fatal within a few days

Symptoms of hypercalcaemia

- Nausea and vomiting
- Constipation
- Confusion
- Fatigue, drowsiness and weakness
- Polyuria leading to dehydration
- Polydypsia
- Seizures, arrhythmias
- Coma

Management of high calcium

- Check is appropriate to treat
  - Does patient want treatment
  - Is patient close to death
- If not lowering calcium levels, manage the symptoms including nausea and vomiting, confusion and constipation

Management: iv fluids

- Intravenous fluids given first: 2 litres 0.9% sodium chloride, in hospice given slowly. (If impaired renal function consider continue iv fluids until normal calcium)
- Fluids lead to small improvement in calcium level, and minimise renal damage.
- A bisphosphonate is required after 2l fluids to further lower calcium levels (when calcium over 2.8) and for more prolonged duration of action.

Bisphosphonates to treat hypercalcaemia

- Bisphosphonates
  - inhibits osteoclast activity
- Side effects:
  - Transient febrile reaction
  - Nephrotoxcity
  - Osteonecrosis rarely: need good oral hygeine and dental visits

Zoledronic acid

- Zoledronic acid – achieves normal calcium in more patients, quicker effect and for longer duration than pamidronate.
- 4 mg zoledronic acid iv in 100ml 0.9% sodium chloride over 15 minutes
- For use of zoledronic acid in renal impairment: avoid if crea >400, need to balance risks and benefits

Monitoring after hypercalcaemia

- Delay of up to 3 days before bisphosphonates begin to act
- Max effect after zol acid 4 - 7 days, effect last 4 weeks, effective in 90%
- Hypercalcaemia likely to recur in the future – need monitoring.
- Some patients need regular bisphosphonate infusions

SEIZURES

- About 20% of patients with cerebral tumours – primary or secondary, experience seizures
- No data to support primary prophylaxis in cancer patients with known brain metastases
- May be worthwhile preparing patients with brain tumours and their families for the possibility of the development of seizures.

  Cover what to do in event of seizure

  Can help with sense of control in distressing situation

Emergency management seizures

- Move objects that may cause injury
- Support for family
- Recovery position if possible, when seizures stopped
- Medication if seizure not rapidly resolving
- Remember possible metabolic causes eg hypoglycaemia

Medication for acute management of seizures

Emergency medication

- Diazepam 10mg PR + can repeat after 15 mins
- Midazolam 5-10mg SC/buccal + can repeat after 15 mins
- Phenobarbital 100mg deep SC/im if not responding

Investigations to consider for seizures

- Consider blood tests for glucose, sodium, calcium, magnesium, renal and hepatic function
- CT scan/MRI scan to look for brain tumour

Convulsions – longer term management

- Commence antiepileptic treatment after first seizure if brain tumour
- Anticonvulsant treatment eg sodium valproate, levetiracetam (can get neurology advice over choice)
- Consider starting, or increasing, dose corticosteroids if intracranial tumour

Driving and seizures

- Remember to advise patient about driving restrictions, cannot drive for a year after a seizure
- Likely to never drive again, further loss of independence

Terminal stages

- When can no longer take oral anticonvulsants, syringe driver with:
  - Midazolam 20 – 60 mg/24 hours sc
  - If continued seizures phenobarbital 200 – 600mg/24 hours sc

Neutropaenic sepsis

- Increasing numbers of patients having chemotherapy further into disease process
- Can also occur with bone marrow suppression from disease process
- Need high index of suspicion, can be fatal if not very rapidly recognised and appropriately managed
- May not have typical symptoms and signs

Neutropaenic sepsis: symptoms and signs include:

- Pyrexia
- Rigors
- Any signs of infection including sore throat, cough, urinary symptoms, skin lesions, diarrhoea
- Tachycardia/hypotension
- Unexplained clinical deterioration even in absence of fever. Can have low temperature

Neutropaenic sepsis: management

- Immediate transfer to hospital for appropriate investigations and management

Sepsis Six – one hour

1) Deliver high-flow oxygen.
2) Take blood cultures.
3) Administer empiric intravenous antibiotics.
4) Measure serum lactate and send full blood count.
5) Start intravenous fluid resuscitation.
6) Commence accurate urine output measurement.

Haemorrhage

- Can be a distressing symptom for patients, families and staff
- Varies from small bleeds which are fairly common, to very rarely severe life threatening haemorrhage

Patients at risk of haemorrhage

- Any cancer around a major artery
- Disorder of clotting function eg in liver failure, or platelet function eg in bone marrow failure in leukaemia
- Medications including anticoagulants eg heparin, NSAIDS eg naproxen, steroids eg dexamethasone

- Co- morbidities eg peptic ulcer

Different types of bleeding include

- Haemoptysis
- Haematemesis
- Haematuria
- Rectal bleeding
- Vaginal bleeding
- External bleeding from fungating tumour

Management of bleeding: location

- This depends on
  - Severity of bleed
  - Potentially reversible causes
  - Patient's underlying condition
  - Patient's wishes

  Home or

  Hospice or

  Hospital may all be appropriate in different circumstances

More active management of bleeding includes initially

- Checking pulse and blood pressure
- Taking blood tests
- Iv fluids and blood transfusion
- Topical adrenaline 1 in a 1000 on gauze swabs pressed on external bleeding source for 10 minutes
- Stop any drugs that may be contributing eg NSAID, anticoagulant

Ongoing active management includes

- Proton pump inhibitor if GI bleed
- Specific treatment for bleeding cause eg radiotherapy, laser therapy,
- Medications to make bleeding less likely eg tranexamic acid

Planning ahead

- Most appropriate place of care if future bleeds
- Might this patient be at risk of severe life threatening haemorrhage

Factors making severe haemorrhage more likely

- Cancer around major artery
- Haematological abnormalities
- Repeated small warning bleeds
- Local infection at tumour site

? Discuss risk with patient

- Not discussing:
  - Rare events
  - Potentially very frightening thought
- Discussing:
    - Easier to prepare practically and emotionally
    - Children in house
    - Warning bleeds
    - Patient asks
    - Preventative measures may be possible
    - Patient likes full information and discussion

Preparation

- Telephone numbers for emergency help during and after bleed
- Discuss preferred care setting with patient
- Equipment:
  - Dark towels, dark sheets, inco pads
  - Gloves, aprons, wipes, waste bags
  - Drugs in house eg midazolam, topical adrenaline 1 in 1000 soaks
  - Alert primary care team

Severe, rapidly fatal haemorrhage

- Very rare
- Causes pain free death in minutes, and often no time for patient to be frightened
- Distressing to witness for family and health care professional, they may need support afterwards

Management of very severe haemorrhage

- Calm approach very important
- Staying with and comforting patient and relatives most important
- Medication (may be no time):
  - Midazolam 10mg im or buccal (not sc)
  - Diazepam 10mg pr

Lorraine

- 64 years, recently diagnosed breast cancer with bone metastases
- In hospice for symptom control with bone pain, active around hospice
- On NSAIDs and steroids for pain
- Episode of haematemesis

Claire

- 64 years, breast cancer with bone, brain, liver and lung metastases
- No further oncology treatment options
- Frail, nursed in bed, on NSAID
- Has said she does not want to return to hospital or further investigations
- Episode of haematemesis

Emergencies summary

- Awareness that emergency may be developing/occurring
- Calm approach
- Communication and individualised management

Thank you!

- Questions?