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Red flags in back pain

Simple degenerative disease accounts for the vast majority of low back pain, with or without neurological symptoms in the legs (sciatica).

The early management includes rest, pain relief and physiotherapy.

The presence of red flags confers a degree of urgency.

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Condition	Red Flags
Tumour or infection	•Age (<20 or >50y), •known Ca •unexplained wt loss • immunosuppression • UTI / fever • not improved by rest
Fracture	•Significant trauma •Prolonged steroids •Age>70y
Neurological syndrome (Severe)	•Urinary retention / overflow incontinence •Saddle anaesthesia •Lower limb weakness

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Bone Tumours
All are rare

Benign

- Aneurysmal bone cyst
- Giant cell tumour
- Haemangioma
- Osteoid osteoma
- Osteoblastoma

Malignant

- Chordoma
- Osteosarcoma
- Chondrosarcoma
- Plasmacytoma
- Multiple myeloma
- Lymphoma
- Ewing's sarcoma

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Metastases

- Cancers that have spread to the spine from elsewhere in the body
- Synchronous
  - Either the spinal symptoms lead to identifying the primary cancer
  - Or spinal disease within 2m of primary tumour diagnosis
- Metachronous
  - Patients with known primary tumour
- Cancers that commonly spread to spine
  - Lung, Breast, Prostate, Kidney, Thyroid

Metastatic spinal cord compression

Assessment

- Neurological deficit
  - Limb function
- Primary
  - Diagnosis, treatment
- Staging
  - Extent of cancer
- Prognosis
  - Survival
- Scoring systems can help assessment

Role of surgery

- Diagnosis
  - Source of cancer
- Decompression
  - To recover limb function
- Stabilisation
  - Pain control
  - Prevent neurological deficit
  - Prevent deformity
- Palliative

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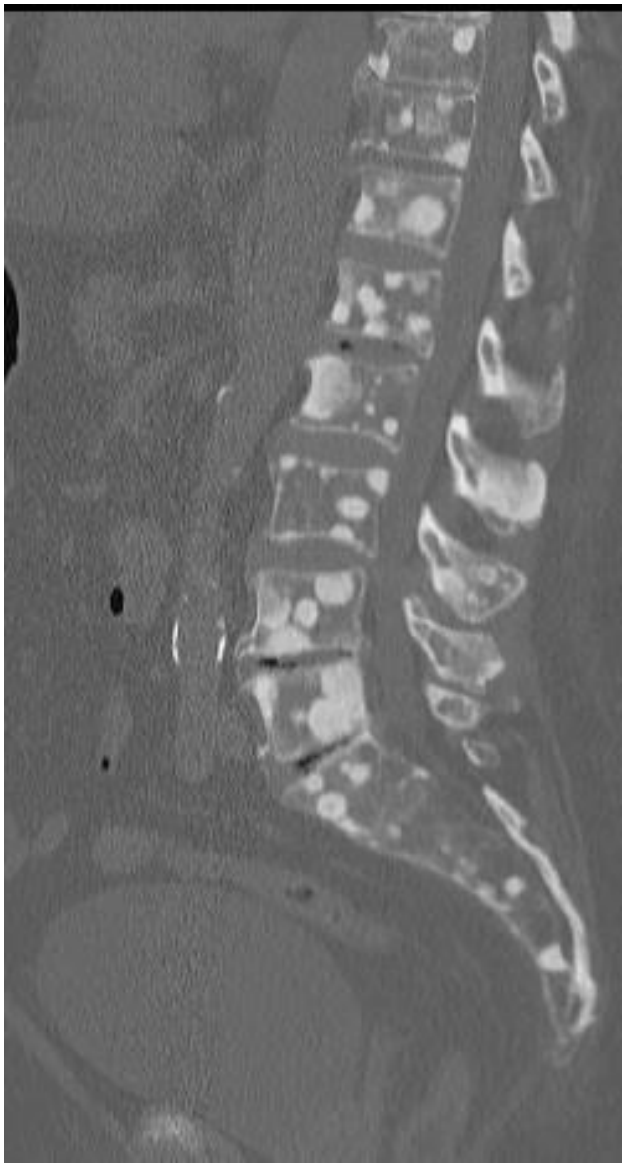
Multiple metastases



- 83 yr old
- Known Ca prostate
- Hormonally escaped
- Abrupt paraplegia
- Image – CT scan

Neural tumours

- Extradural
  - Neurofibroma
- Intradural extramedullary
  - Meningioma
  - Neurofibroma
- Intradural intramedullary
  - Ependymoma
  - Astrocytoma

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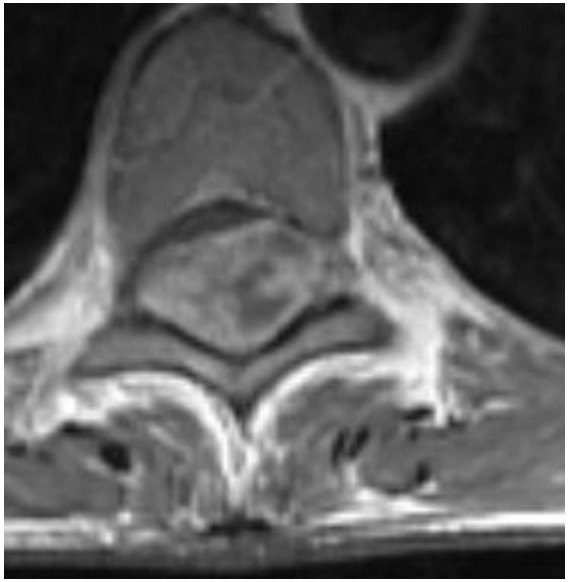
Neurofibroma



Spinal infection

- Commonest is post-operative infection
- Infection can arise due to blood-borne spread of bacteria
- Commonly from skin or urinary infection
- Tuberculosis can also affect the spine
- Treatment hinges on confirming the organism and a protracted course of antibiotics

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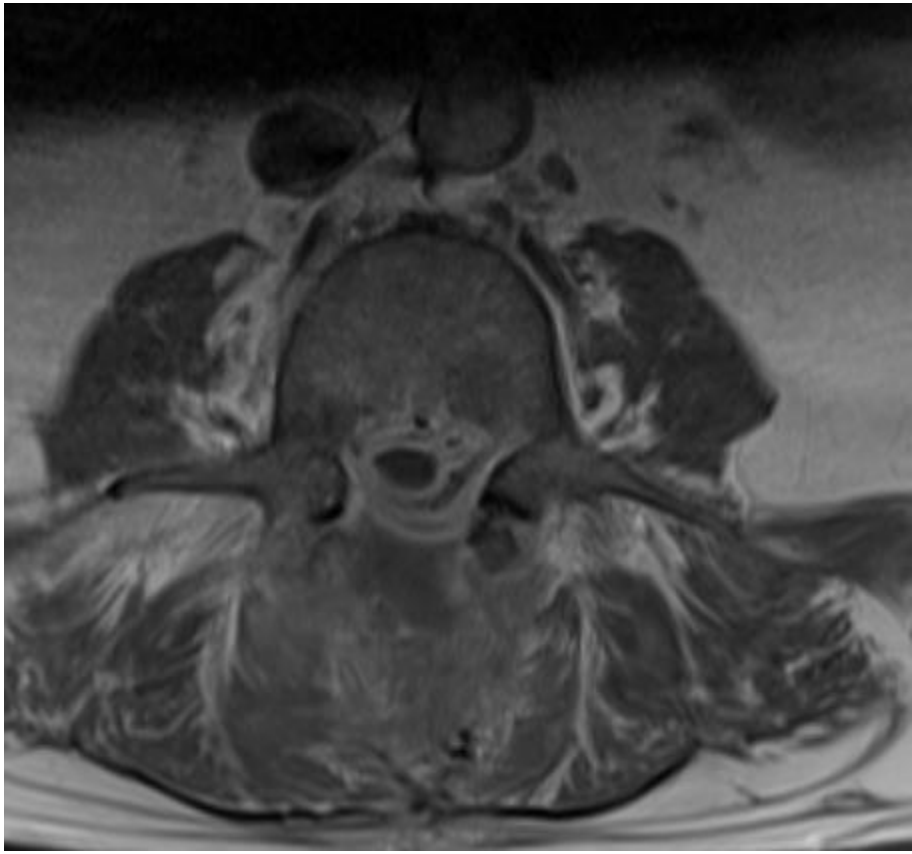
Staphylococcal infection



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Lumbar burst fracture

The injury is usually obvious after trauma.

Surgery can stabilise the spine

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Vertebral insufficiency fractures

- Weakened bone due to either osteoporosis (common) or tumour (unusual) can fracture with low force
- Calcium and bisphosphonates can aid bone healing
- Persistent pain might warrant cement augmentation - vertebroplasty or kyphoplasty