

## Introduction

Expanding suppurative infection in epidural space that can compress cord & blood supply → sensory & motor dysfunction, even, paralysis and death.

## Pathophysiology

- Spinal epidural space larger posteriorly
- Infections tend to occur in the posterior space & spread over several vertebral levels.
- Thoracic area commonest

## Source of infection

- Direct extension e.g. from vertebral osteomyelitis or Epidural injections or catheters occurs in adults and rarely in children.
- Haematogenous spread with seeding of the epidural space in most children & some adults
  - Skin and soft tissue
  - Infected catheter
  - Bacterial endocarditis
  - Respiratory tract infection
  - Urinary tract infection
  - Dental abscess
- The source of infection is not identified in many patients.

## Risk factors

- IVDA, DM, alcoholism, immunosuppression all high risk factors

## Pathogens

- Staphylococcus spp esp S. aureus
- Pseudomonas species
- Escherichia coli
- Mycobacterium tuberculosis.

## Clinical

### History

- Diagnosis may be missed as presentation may be quite variable and subtle.
- The clinical triad of fever, back pain, and neurologic deficit is not present in most.
- Frequently the patient gives a history of back strain or mild injury.
- An evident source of infection in skin or soft tissue may be found.

### Physical

- Physical findings vary with the degree of spinal cord compression or dysfunction.
- Incomplete or Transverse cord syndromes in advanced cases
- Localized tenderness at the site of abscess ± paraspinal muscle spasm.
- Reflexes may vary from absent to hyperreflexia with clonus and +Babinski reflexes.
- Nuchal rigidity may be present, particularly with cervical epidural abscesses.

## Investigations

*Bloods:* FBC, blood cultures, ESR elevation

*Imaging:* urgent spinal MRI, CT myelography or conventional myelography

*Other Tests:* LP is relatively CI.

## Management

- Resuscitation
- IV Abx: **flucloxacillin** 2g (child 50mg/kg) IV q6h + **gentamicin** 4-6mg/kg (7.5mg/kg) IV od
- Emergency surgical decompression of the spinal cord and drainage of the abscess
  - Indications: ↑neurologic deficit, persistent severe pain/fever/WCC.