Spinal Cord Compression (SCC)

BE AWARE

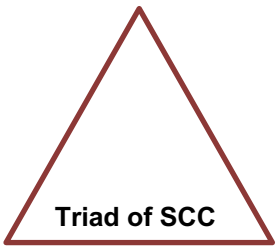
Earlier diagnosis = better outcome.

Definition

Impingement of the spinal cord most commonly due to direct tumour extension through intervertebral foramina

Signs & Symptoms

Back pain



Weakness
- Symmetrical
- Unsteady gait
- Para/quadriplegia

Sphincter disturbance
- Previously continent
- May involve urinary retention/constipation

Signs
- Sensory level
- Muscular weakness
- Increased tone
- Clonus
- Extensor plantar reflexes
- Tenderness to spinal palpation
- Palpable bladder

Young / pre-ambulatory child
- Subtle signs
- Motor developmental regression

Management

EARLY DISCUSSION WITH PTC CONSULTANT (ONCOLOGY & NEUROSURGERY)
DOCUMENT A FULL NEUROLOGICAL EXAMINATION
URGENT TRANSFER TO PTC

- ✓ **Analgesia (see 'Symptom Management Section')**
- ✓ **Avoid constipation**
- ✓ **Catheterise to support bladder function if necessary**

Investigations:
- ✓ **CXR:** perform AP/PA & lateral to establish if mediastinal mass present
- ✓ **Bloods:** FBC, film, U&E, LDH, phosphate, urate, clotting
- ✓ Serum alpha-feto protein, beta-HCG & urinary VMAs to aid a new diagnosis
- ✓ **MRI spine**: the 'gold standard '
- ✓ **CT spine**: if normal this does NOT exclude intra-spinal pathology
- ✓ **USS abdomen**: looking for adrenal tumour / abdominal mass

If there are no features of lymphoma (in itself a rare cause of SCC and more likely if there is an anterior mediastinal mass on CXR or CT, hepatosplenomegaly or blasts on a peripheral film) then URGENTLY commence dexamethasone on discussion with the PTC Consultant

Causes

Undiagnosed 1st presentation
Common
Neuroblastoma / Ewing's
Less common
Rhabdomyosarcoma, soft tissue sarcoma, wilms, osteosarcoma, lymphoma, leukaemia, germ cell tumour

Post-diagnosis
Terminal phase of relapsed/ progressive cancer, metastatic disease due to any primary

Other
Infection (osteomyelitis, spinal / paraspinal abscess), vertebral collapse, spinal cord infarction, intraspinal haematoma, radiation myelopathy

Decisions to be made upon arrival at the PTC

Definitive treatment plan (chemotherapy / radiotherapy / neurosurgical decompression) following discussion with neurosurgical team

PIER
Paediatric Innovation, Education and Research Network

AFM/SB 2017