Identifying Spinal Cord Compression - Key Red Flags

Including a Summary of a Recent Presentation by Sue Greenhalgh & Colleagues, Bolton Orthopaedic CATS

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Significant Event Reviews

• Case reviews of the consultation histories of patients diagnosed at a late stage with sinister back pain have shown that Red Flags were present at an early stage

• Wider knowledge of Key Red Flags for sinister back pain could lead to earlier diagnosis and a better outcome for the patient

• Sinister causes of back pain include Metastatic Disease and Spinal Abscesses
The Cauda Equina

- The cauda equina is formed by nerve roots distal to the level of spinal cord termination (Usually L1/L2). Cauda equina syndrome is caused by compression of these nerves.
- Compression can occur by trauma, vertebral fracture or displacement, disc herniation, a tumour or metastatic deposit or an abscess.
- Because permanent neurological damage can occur early identification and urgent treatment is critical.
Cauda Equina Syndrome

Low back pain and:

• Bladder dysfunction, usually retention.
• Sphincter disturbance
• Saddle anaesthesia
• Lower limb weakness
• Gait disturbance

• Urgent referral is mandatory
Metastatic Spinal Cord Compression (MSCC)
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- Can happen at any level of the spinal cord
- A search of the literature has shown that 163 Red Flags for sinister back pain have been identified!
- ‘Which of these are most useful for identifying MSCC at an early stage?’
Early Warning Signs of Metastatic Spinal Cord Compression

- Referred pain that is segmental or band-like
- Escalating pain which is poorly responsive to treatment (including medication)
- Different character or site to previous symptoms
- Funny feelings, odd sensations or heavy legs (multisegmental)
- Lying flat increases pain
- Agonising pain causing anguish & despair
- Gait disturbance, unsteadiness, especially on stairs (not just a limp)
- Sleep grossly disturbed due to pain being worse at night
Metastatic Spinal Cord Compression

- **NB**- Established motor/sensory/bladder/bowel disturbances are late signs
- **Past Medical History of Cancer** (but note 25% of patients do not have a diagnosed primary)
- **Early Diagnosis is Essential** as the prognosis is much worse once paralysis occurs
- **A Combination of Red Flags increases suspicion** (the greater number of red flags the higher the risk and the greater the urgency)
- To access the MSCC guidelines go to [www.gmccn.nhs.uk](http://www.gmccn.nhs.uk)
- NHS Greater Manchester and Cheshire Cancer Network

Greenhalgh & Selfe 2009