OVERVIEW OF THE MANAGEMENT OF SPINAL CORD COMPRESSION DUE TO METASTATIC CANCER

Spinal cord compression is not uncommon among patients with advanced breast, lung and prostate cancer, and myeloma. It can develop in any type of malignancy in association with bone metastases, and occasionally as a result of extra-dural soft tissue tumour, as in lymphoma.

Delay in treatment results in paraplegia (if cervical spine involved, quadriplegia), loss of bowel and bladder control, devastating loss of independence and quality of life and markedly reduced survival.

It is essential to:

- Be alert to possible cord compression in at risk patients with warning symptoms and signs
- Ensure imaging to confirm diagnosis within 24 hours
- Ensure prompt treatment within 24 hours of confirmed diagnosis

The best outcome for the patient depends upon treatment when there is minimal neurological impairment.

Referral for imaging

MRI scan is the investigation of choice. It should be requested urgently and within 24 hours of clinical suspicion. CT scan should be requested if MRI scan is not possible (cardiac pacemaker, metal implants, severe claustrophobia).

Imaging should be performed at the nearest local hospital and scans should accompany the patient when transferred for radiotherapy or surgery.

See also protocol for imaging via website*

Hospital admission

It is anticipated that all patients with a definite clinical diagnosis will require urgent admission for investigation, management of the compression and ongoing rehabilitation. This should usually be to the nearest local hospital. A number of patients who subsequently are treated with radiotherapy will receive a single treatment and this can be given as an out-patient, returning to the outside hospital the same day.
In all cases where an oncologist has already been involved in the management of a patient’s malignant disease, individual/team should be contacted at the Christie Hospital to discuss the plan of action. In some circumstances, the oncologist may advise admission direct to the Christie Hospital, particularly in relation to patients with rare tumours.

**Referral for treatment**

High dose steroids should be commenced with clinical suspicion (dexamethasone 16 mgs. i.v/p.o immediately then 16 mgs. daily).

When imaging confirms clinical diagnosis of cord compression, a senior clinician (specialist registrar or consultant) must refer for urgent treatment. Ideally this should be within 24 hours of onset of neurological symptoms and certainly within 24 hours of confirmation by imaging.

**Consider surgery where:**

- No underlying diagnosis has been made
- Limited levels of cord compression on imaging
- Minor neurological impairment
- Previous radiotherapy has already been given to this level
- The general condition of the patient is suitable for general anaesthesia and surgery
- Estimated life expectancy of at least six months

*See surgical referral guidelines via website*

**Consider radiotherapy where there is established diagnosis of metastatic cancer and:**

- Patient is unfit for surgery
- There is extensive vertebral involvement
- Spinal cord compression and disease at multiple levels
- No previous radiotherapy to level of compression
- Especially if tumour is very radio responsive, e.g. small cell lung cancer, myeloma.

Even if there is a major neurological deficit, radiotherapy may prevent loss of sphincter control if still intact, and help with pain. Discuss with Clinical Oncology (Radiotherapy) Team if unsure.

*See protocol for radiotherapy via website*

It is likely that most patients with spinal cord compression from advanced metastatic disease would receive urgent palliative radiotherapy as a single session or fractionated treatment depending on clinical status. This decision rests with the clinical oncologist. In some situations chemotherapy may be the initial treatment under direction by the oncologist.

Refer directly to the Christie Hospital for patients with non-Hodgkins lymphoma, sarcoma, those already admitted locally but no access to MRI facilities (e.g. in hospice).
Transfer of patients: check list

- Steroids should be commenced immediately
- Patient should be on flat bed rest and log rolled (consider collar if cervical involvement)
- Provision for pain relief prior to journey. If possible send additional oral analgesia to accompany outpatients, which can be used if necessary while they are in the department
- Health records, drug charts and recent MR or CT scans must accompany patient
- Explanation given to patient and family

*For more information and protocols on management of spinal cord compression, see [www.christie.nhs.uk/spinal protocols](http://www.christie.nhs.uk/spinal protocols)