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

THE CHRISTIE, GREATER MANCHESTER & CHESHIRE

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Spinal cord compression is more common among patients with advanced prostate, lung, breast cancer and myeloma. However, 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
- Have a low threshold for MR scan. Delaying imaging to once symptoms are established is likely to have a significantly worse outcome for patients.
- Ensure flat bed rest for patients with suspected or actual cord compression until stability is confirmed
- Ensure imaging to confirm diagnosis within the 24 hour or 7-day pathway as OP (see MSCC Alert guide)
- Liaise with the Network MSCC Co-ordinator to ensure effective clinical management via Christie switchboard
- Ensure prompt treatment where possible within 24 hours and before any further deterioration.

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

Referral for imaging

MRI scan of the whole spine is the investigation of choice and should be performed at the patient's local hospital. It should be requested urgently, completed (and reported) within 24 hours of clinical suspicion. CT scan should be requested if MRI scan is not possible (e.g. cardiac pacemaker, metal implants, severe claustrophobia). Where there is no definite established neurology and there is a lower level of suspicion, an OP MRI scan within the NICE 7-day pathway should be arranged. Safety net information should be given to patient to present urgently if any deterioration in pain or neurology.

See protocol for imaging at www.christie.nhs.uk/MSCC

Hospital admission

All patients where there is a high level of suspicion for MSCC will require urgent admission to their local hospital for clinical assessment and MRI scan. If cord compression is confirmed, the MSCC Coordinator at the Christie must be contacted via the Christie switchboard on 0161 446 3000 with all relevant information (see MSCC Pathway document on www.christie.nhs.uk/MSCC) so that patient can be appropriately triaged with an urgent management decision regarding treatment and on-going rehabilitation. Patients will be triaged for surgical opinion and surgery if appropriate, radiotherapy or best supportive care. All patients should be referred to the Physiotherapy and OT departments on admission for immediate input and rehabilitation.

In all cases where an oncologist has already been involved in the management of a patient's malignant disease, the MSCC Coordinator will contact the disease specific team to discuss the plan of action. In some circumstances, the oncologist may advise admission direct to The Christie, particularly in relation to patients with rarer tumours and patients who are on certain clinical trials.

Referral for treatment

High dose steroids should be commenced as soon as possible when there is clinical suspicion (Dexamethasone 16 mgs. i.v/p.o loading dose then 8 mg BD + gastric protection).

When imaging confirms clinical diagnosis of cord compression, a member of the medical team or the local Acute Oncology team must contact the MSCC Coordinator service urgently.

Surgery followed by post-operative radiotherapy has been shown to provide the best clinical and functional outcome in some patients with MSCC.

Surgery will be considered where*:*

- No underlying diagnosis has been made
- The general condition of the patient is suitable for general anaesthesia and surgery

- Estimated life expectancy of at least six months
- Limited levels of cord compression on imaging
- Some useful neurological function is preserved (MRC grade 3 and above)
- Previous radiotherapy has already been given to this level
- Radio-resistant tumours

See surgical referral guidelines at ***www.christie.nhs.uk/MSCC***

Radiotherapy will be considered 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 (within the last 6 months) to level of compression
- Primary tumour is 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.

See protocol for radiotherapy at www.christie.nhs.uk/MSCC

Most patients with spinal cord compression from advanced metastatic disease will receive urgent palliative radiotherapy as a single session or alternatively fractionated treatment depending on clinical status. This decision rests with the clinical oncologist. In some situations systemic anticancer treatment (SACT) may be the initial treatment under direction by the oncologist.

Rehabilitation

All patients should be referred to the Physiotherapy and Occupational Therapy (OT) department on admission and be assessed within 24 hours (physiotherapy) and 48 hours (OT). Rehabilitation is essential to enable patient to maximise function, independence and improve their quality of life. Rehabilitation must start on admission and continue after discharge if necessary until the rehabilitation goals have been met.

There is a named **MSCC Rehabilitation AHP Link person** within all hospital and community services who should be contacted for advice and to co-ordinate rehabilitation. To contact the appropriate AHP, please consult the directory which is available under the Rehabilitation resources MSCC information on the Christie web site (see link below).

For more information and protocols on management of MSCC see:
http://www.christie.nhs.uk/MSCC

CONSULTATION, APPROVAL & RATIFICATION PROCESS

All documents must be involved in a consultation process either locally within a department or division or throughout the trust at relevant board/committee meetings before being submitted for approval.

VERSION CONTROL SHEET

Version	Date	Author	Status	Comment
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