Spinal Cord Compression Management in Cancer Patients

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PATIENT PRESENTATION

Suspected spinal cord compression (severe pain or abnormal neurology, or incidental finding on MRI - not intended for traumatic injuries. If in emergency center, triage patient as emergent).

1. Pain and/or neurological symptoms with progression within 48 hours?
   - Yes
   - No

   No

   Yes

2. Tissue diagnosis if clinically indicated

3. Chemosensitive disease?
   - Yes
   - No

   No

   Yes

4. Primary team to treat with chemotherapy

5. Surgery appropriate?
   - Yes
   - No

   No

   Yes

6. Radiation therapy appropriate?
   - Yes
   - No

   No

   Yes

   ● Reconsider Neurosurgery
   - Palliative Care for symptom control

   ● Post-treatment follow up
   - Re-evaluate symptoms and determine further treatment

   Attending physician initiates discussions to determine appropriate treatment (considering spine stability, extent of disease, performance status, and prognosis) with:
   - Patient
   - Primary physician regarding prognosis
   - If neurological deficits - emergent Neurosurgery consult and Radiation Therapy consult
   - If suspected spinal instability - emergent Neurosurgery consult
   - If patient neurologically intact - admit for further evaluation by primary service and notify Radiation Oncology and Neurosurgery of patient status and consult
   - If unclear whether signs and symptoms correlate with MRI - consider Neurology consult
   - Consider Pain consult if clinically indicated
   - Consider Infectious Disease consult if clinically indicated

   ● Further work-up by treating physician
   - Notify Neurosurgery if suspected spinal instability

   ● Consider dexamethasone 10 mg IV STAT followed by 16 mg PO daily in divided doses (taper over 2 weeks)
   - Obtain urgent MRI of entire spine without contrast (to be reviewed by Radiologist while patient in MRI to evaluate for addition of contrast)
   - Consider bed rest (no walking)
   - If cervical spine lesions suspected, place patient in Philadelphia Collar
   - Baseline neurological exam followed by serial neurological exams after steroid treatment

   MRI supports spinal cord compression?

   Yes

   No

   ● Consider dexamethasone 10 mg IV followed by 16 mg PO daily in divided doses during this encounter (to be reviewed by Radiologist while patient in MRI to evaluate for addition of contrast)

   Emergent treatment as follows:
   - Dexamethasone 10 mg IV STAT followed by 16 mg PO daily in divided doses (taper over 2 weeks)
   - Obtain urgent MRI of entire spine without contrast (to be reviewed by Radiologist while patient in MRI to evaluate for addition of contrast)
   - Consider bed rest (no walking)
   - If cervical spine lesions suspected, place patient in Philadelphia Collar
   - Baseline neurological exam followed by serial neurological exams after steroid treatment

   1. Consider use of Frankel Classification to assist with patient’s current status (see Appendix A)
   2. Use of steroids in undiagnosed lymphomas is not recommended (see Appendix A)
   3. CT scan if not eligible for MRI
   4. Consider use of Epidural Spinal Cord Compression (ESCC) Scale for cord compression assessment (see Appendix B)
   5. For instances where patient is already receiving chemotherapy, the oncologist will advise on whether treatment should be continued/discontinued/delayed
   6. Consider radiosensitivity of tumor
## APPENDIX A: Frankel Classification

<table>
<thead>
<tr>
<th>Grade</th>
<th>Status</th>
<th>Sensory Function Below Level of Compression</th>
<th>Motor Function Below Level of Compression</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Paraplegia</td>
<td>No sensation</td>
<td>Complete paralysis (no function)</td>
</tr>
<tr>
<td>B</td>
<td>Sensory function only</td>
<td>Some sensation</td>
<td>Complete paralysis (no function)</td>
</tr>
<tr>
<td>C</td>
<td>Non-ambulatory</td>
<td>-</td>
<td>Some motor function, but of no practical use to the patient</td>
</tr>
<tr>
<td>D</td>
<td>Ambulatory</td>
<td>-</td>
<td>Some motor function, but of no practical use to the patient</td>
</tr>
<tr>
<td>E</td>
<td>No neurologic signs or symptoms</td>
<td>Normal</td>
<td>Normal</td>
</tr>
</tbody>
</table>
APPENDIX B: Epidural Spinal Cord Compression (ESCC) Scale

Schematic representation of the 6-point ESCC grading scale.

- **Grade 0**: Bone-only disease
- **Grade 1a**: Epidural impingement, without deformation of thecal sac
- **Grade 1b**: Deformation of thecal sac, without spinal cord abutment
- **Grade 1c**: Deformation of thecal sac, with spinal cord abutment, without cord compression
- **Grade 2**: Spinal cord compression, with cerebral spinal fluid (CSF) visible around the cord
- **Grade 3**: Spinal cord compression, no CSF visible around the cord

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SUGGESTED READINGS


Continued on Next Page
SUGGESTED READINGS - continued


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DEVELOPMENT CREDITS

This practice consensus statement is based on majority opinion of the Spinal Cord Compression workgroup at the University of Texas MD Anderson Cancer Center. These experts included:

Patricia A. Brock, MD (Emergency Medicine)
Olga N. Fleckenstein
Ashok J. Kumar, MD (Diagnostic Radiology - Neuro Imaging)
Jeffrey A. Lockett, BSN, RN
Monica Elena Loghin, MD (Neuro-Oncology)
Anita Mahajan, MD (Radiation Oncology Department)
Laurence D. Rhines, MD (Neurosurgery)
Terry W. Rice, MD (Emergency Medicine)
Komal Shah, MD (Diagnostic Radiology - Neuro Imaging)
Claudio Esteves Tatsui, MD (Neurosurgery)
Jayne Viets-Upchurch, MD (Emergency Medicine)
Jeffrey Weinberg, MD (Neurosurgery)

Core Development Team Leads
Clinical Effectiveness Development Team