EMERGENT TREATMENT AS FOLLOWS:

- Dexamethasone $^2$ 10 mg IV STAT followed by 16 mg PO daily in divided doses (taper over 2 weeks)
- Obtain STAT MRI cervical thoracic lumbar spine without contrast\(^1\) (to be reviewed by Radiologist while patient is in MRI to evaluate for addition of contrast)
- Implement bed rest
- If cervical spine lesions suspected, place patient in Philadelphia Collar
- Baseline neurological exam followed by serial neurological exams after steroid treatment
- Initiate mechanical prophylaxis options for venous thromboembolism
- Initiate discussion with primary team to determine patient’s prognosis, systemic disease progression and therapeutic options

IMAGING SUPPORTS SPINAL CORD COMPRESSION?\(^1\)

ATTENDING PHYSICIAN INITIATES DISCUSSIONS TO DETERMINE APPROPRIATE TREATMENT (CONSIDERING SPINE STABILITY, THE EXTENT OF DISEASE, PERFORMANCE STATUS, AND PROGNOSIS) WITH THE FOLLOWING:

- Patient
- Primary physician regarding prognosis
- If neurological deficits – STAT emergent consults to Neurosurgery and Radiation Oncology
- If suspected spinal instability – STAT emergent consult to Neurosurgery
- If neurologically intact – admit patient for further evaluation by primary service. Consult Radiation Oncology and Neurosurgery.
- If unclear whether signs and symptoms correlate with MRI - consider Neurology consult
- Consider Pain Management and/or Palliative/Supportive Care consult if clinically indicated
- Consider Infectious Disease consult if clinically indicated

- Further work-up by treating physician
- Notify Neurosurgery if suspected spinal instability
- Consider Infectious Disease consult if clinically indicated

CHEMOSENSITIVE DISEASE?\(^2\)

YES

PRIMARY TEAM TO TREAT WITH CHEMOTHERAPY?\(^2\)

YES

SURGERY APPROPRIATE?\(^3\)

YES

Surgery

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

NO

RADIATION THERAPY APPROPRIATE?\(^5\)

YES

- Reconsider Neurosurgery
- Palliative Care for symptom control
- Consider Physical Medicine and Rehabilitation consult for neurogenic bladder and bladder management
- Consider PT/OT consult for mobility for ages under 13 or 16

NO

SURGERY

Tissue diagnosis if clinically indicated

Yes

Chemotherapy appropriate?\(^4\)

YES

Surgery

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

NO

RADIATION THERAPY

- Reconsider Neurosurgery
- Palliative Care for symptom control
- Consider Physical Medicine and Rehabilitation consult for neurogenic bladder and bladder management
- Consider PT/OT consult for mobility for ages under 13 or 16

PAIN AND/OR NEUROLOGICAL SYMPTOMS WITH PROGRESSION WITHIN 48 HOURS?\(^6\)

YES

PATIENT PRESENTATION

Suspected spinal cord compression (severe pain or abnormal findings on exam or neurologic complaints or incidental finding on imaging - not intended for traumatic injuries. If in Acute Cancer Care Center, triage patient as emergent.)

No

Table 1: Spinal Cord Compression Management in Cancer Patients

\(^1\) Consider use of Frankel Classification to assist with patient's current status (see Appendix A)
\(^2\) Consider use of Epidural Spinal Cord Compression (ESCC) Scale for cord compression assessment (see Appendix B)
\(^3\) For instances where patient is already receiving chemotherapy, the oncologist will advise on whether treatment should be continued/discontinued/delayed
\(^4\) Consider use of Radiosensitivity of tumor

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care. This algorithm should not be used to treat pregnant women.

Approved by the Executive Committee of the Medical Staff on 05/18/2021

Department of Clinical Effectiveness, MD Anderson Cancer Center
Spinal Cord Compression Management in Cancer Patients

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### 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

SUGGESTED READINGS


Continued on Next Page
SUGGESTED READINGS - continued


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