

Evidence Discussion (ONC 31.6)

Metastatic Spinal Cord Compression

The incidence of malignant cord compression varies with cancer type, but is rarely the first sign of systemic cancer. Back pain is the most common presenting symptoms, and is reported in 80-95% of patients. Pain is often refractory to traditional pain medications. Sensory and motor deficits occur in 35-75% of patients, and acute bowel/bladder dysfunction are other red flags for cord compression. Up to 35% of patients have multiple levels of compression, which may be non-contiguous, and as such where symptoms as above suggest cord compression in a patient with a history of malignancy, imaging of the whole spine is warranted. MRI with and without contrast has a sensitivity and specificity of 93 and 97 percent respectively. ACR appropriateness criteria state CT myelogram 'may be appropriate' in this setting, and it may be faster to obtain, and may be necessary to plan surgical intervention, and thus is also supported by eviCore guidelines for suspected malignant cord compression.

Some patients will present with more localized symptoms suggestive of localized nerve root involvement but not consistent with the above symptoms of cord compression. Unilateral symptoms suggest a lower motor neuron lesion. Other symptoms suggestive of nerve root involvement are night pain, refractory pain, and pain unrelieved by a change in position. Elderly patients with a cancer history are also at higher risk for nerve root involvement. Unintentional weight loss without other localizing symptoms may also suggest nerve root involvement. Aligning with ACR appropriateness criteria, in patients with a history of malignancy with any of the above, MRI without and with contrast of the involved spinal level of symptoms is supported. CT is less sensitive than MRI in this setting and is supported only when MRI is contraindicated.

References

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