Sacral Spine Myeloid Sarcoma

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The Neurohospitalist
2016, Vol. 6(2) 87-88
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DOI: 10.1177/1941874415599578
nhos.sagepub.com

Keywords

acute myeloid leukemia, myelopathy, myeloid sarcoma

Figure 1. Magnetic resonance imaging of lumbar spine T2-weighted sagittal (A) and axial (D) sequence of lumbar spine shows a large T2 hyperintense lesion (arrows) extending into the dorsal epidural space as well as into the paraspinal soft tissues, resulting in severe effacement of the thecal sac at L2-3, with tethering of cauda equina nerve roots. T1-weighted sagittal sequence (B) shows multiple hypointense vertebral lesions (arrow). Gadolinium-enhanced T1-weighted sagittal (C) and axial (E) sections show enhancement of the lesion (arrow) extending into L2-L3 neural foramina consistent with myeloid sarcoma.

Case

A 55-year-old man with acute myeloid leukemia (AML) underwent 2 cycles of induction chemotherapy and allogeneic stem cell transplant and was considered to be in remission thereafter. Ten months later, he presented with progressive

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weakness of bilateral lower extremities. Neurological examination revealed weakness in bilateral lower extremities distal worse than proximal with hyporeflexia. Radiographic evaluation with magnetic resonance imaging of spine demonstrated multiple osseous and extra-osseous paravertebral soft tissue masses infiltrating into epidural space through multiple neural foramina in lumbar spine (Figure 1). Bone marrow biopsy confirmed relapse of AML. In the clinical setting of relapse of AML and radiological features of the epidural masses, the diagnosis of myeloid sarcoma was made.¹ Due to failure of stem cell transplant and advanced disease, patient opted for palliative care.

Discussion

Myeloid sarcoma (also known as chloroma or granulocytic sarcoma) is an extramedullary solid tumor of precursor myeloid cells.¹ It is a rare manifestation of AML, and the common sites of involvement are skin, soft tissue, orbit, head, and neck. It is believed that the tumor cells migrate from bone marrow to extramedullary sites via Haversian canal. Involvement of spinal cord has been reported on rare instances.² The lesions are most commonly seen around thoracic spinal cord involving the paravertebral region and often have intraspinal invasion causing cord compression. Presence of granulocytic

sarcoma is often associated with poor prognosis.² Treatment consists of radiation therapy. Extramedullary spinal cord compression due to myeloid sarcoma is a rare manifestation of AML and should be considered in differential diagnosis of weakness in patients with AML.

Authors' Note

Dr. Dhakar contributed to manuscript concept, design, and research. Dr. Bansal contributed to image preparation, manuscript design, and revision. Dr. Tselis contributed to Manuscript concept, design and revision.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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