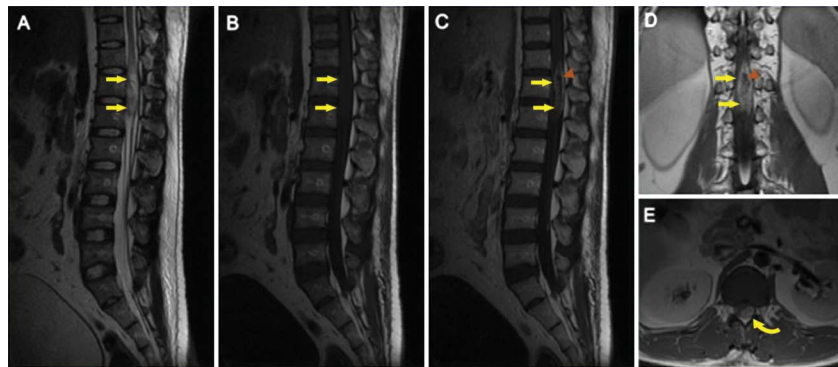


Teaching NeuroImages: An unusual cause of conus medullaris syndrome

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Figure 1 Lumbar MRI of a primary tumor of conus medullaris



Sagittal T2-weighted (A) and T1-weighted (B) lumbar MRI show a predominantly isointense intramedullary mass with heterogeneity due to intratumoral necrosis in the conus medullaris. Sagittal (C), coronal (D), and axial (E) T1-weighted MRI after administration of gadolinium show marked heterogeneous enhancement of the tumor with central necrosis and eccentric location.

A 22-year-old man presented with a 3-month history of back pain and numbness of the left lower extremities. Lumbar spine MRI demonstrated conus enlargement and an intramedullary mass of predominant isointensity, heterogeneity with central necrosis, and marked heterogeneous enhancement (figure 1). The tumor was resected and was consistent with a glioblastoma multiforme. Two months later, the tumor recurred and extended both cranially and caudally with widespread multifocal dissemination to the leptomeninges and the cauda equina (figure 2). The patient deteriorated rapidly despite radiation therapy and concomitant temozolomide.

Primary glioblastoma multiforme of the conus medullaris is extremely rare and generally fatal.^{1,2} Some diagnostic clues include eccentric location, hemosiderin, and irregular ring enhancement with central necrosis on MRI.² Moreover, there is a propensity for leptomeningeal spread and a rapidly progressive course.

AUTHOR CONTRIBUTIONS

Dr. Wei: drafting and revising the manuscript, study design, study supervision. Dr. Kang: acquisition and interpretation of data. Dr. Liu: drafting and revising the manuscript, interpretation of data. Dr. Yin: study design, acquisition of data.

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Figure 2 Follow-up MRI evaluation of postoperative spine



Postoperative contrast-enhanced T1-weighted lumbar MRI shows a recurrent tumor with cranial and caudal extension, as well as diffuse nodular leptomeningeal deposits. Linear enhancement of the cord surface is also seen.

DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

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