Teaching NeuroImages: Intradural, intramedullary spinal cord metastasis from primary renal cell carcinoma

Muhammad Taimur Malik, MD, Syed Jaffar Kazmi, MD, and Scott Turner, MD

Neurology® 2018;90:e911-e912. doi:10.1212/WNL.0000000000005072

Correspondence

Dr. Malik
mamalik@geisinger.edu

Figure 1 MRI and CT imaging

(A) Axial view of MRI of the thoracic spine without contrast. (B) Axial view of MRI of the thoracic spine with contrast shows contrast enhancement of the intramedullary intradural lesion as depicted by the arrow. (C) Sagittal view of the MRI thoracic spine shows T2 sequence. (D) Sagittal view of MRI of the thoracic spine without contrast. (E) Sagittal view of MRI of the thoracic spine with contrast shows contrast enhancement of the intradural intramedullary lesion (arrow). (F) CT chest, abdomen, and pelvis shows the left renal mass (arrow).

A 75-year-old man with hypertension presented with 2 weeks' history of left lower extremity numbness and weakness. Initial neurologic examination revealed 4/5 muscle strength in the left lower extremity with intact reflexes and decreased left-sided sensation. MRI of the thoracic spine revealed a mass with surrounding edema at T11–12 (figure 1, A and B). CT chest, abdomen, and pelvis showed left renal mass (figure 1F). Biopsy showed stained cells, positive for PAX8 and vimentin and negative for glial fibrillary acidic protein, which was consistent with renal cell carcinoma (figure 2). The patient underwent surgical excision and radiotherapy. Intradural intramedullary metastatic lesions are a rare manifestation of primary renal cell cancer.^{1,2}

MORE ONLINE

→ **Download teaching slides**

links.lww.com/WNL/A299

From the Department of Neurology, Geisinger Medical Center, Danville, PA.

Go to Neurology.org/N for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

Figure 2 Histopathology

(A) Hematoxylin & eosin (H&E)-stained section shows metastatic carcinoma composed of epithelial cells with moderate clear cytoplasm and round to slightly irregular hyperchromatic nuclei. Some of the nuclei contain small nucleoli. There are thin fibrovascular septa traversing the tumor staining of the biopsy specimen. (B) Glial fibrillary acidic protein (GFAP) immunostain is negative in tumor cells. (C, D) Tumor is positive for PAX8 (C), vimentin (D), and CD10 (not shown), consistent with renal cell carcinoma (A–D magnification $\times 200$).

Author contributions

M.T. Malik assisted in the clinical assessment of the patient, edited the images, and wrote the manuscript. S. Kazmi assisted with the histopathologic images and edited the images and the manuscript. S. Turner performed the patient's clinical assessment and performed critical revision of the manuscript.

Study funding

No targeted funding reported.

Disclosure

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

References

1. Grem JL, Burgess J, Trump DL. Clinical features and natural history of intramedullary spinal cord metastasis. *Cancer* 1985;56:2305–2314.
2. Connolly ES Jr, Winfree CJ, McCormick PC, Cruz M, Stein BM. Intramedullary spinal cord metastasis: report of three cases and review of the literature. *Surg Neurol* 1996;46:329–337.

Neurology®

Teaching NeuroImages: Intradural, intramedullary spinal cord metastasis from primary renal cell carcinoma

Muhammad Taimur Malik, Syed Jaffar Kazmi and Scott Turner

Neurology 2018;90:e911-e912

DOI 10.1212/WNL.0000000000005072

This information is current as of March 5, 2018

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/90/10/e911.full
References	This article cites 2 articles, 0 of which you can access for free at: http://n.neurology.org/content/90/10/e911.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): MRI http://n.neurology.org/cgi/collection/mri Other Education http://n.neurology.org/cgi/collection/other_education Spinal cord tumor http://n.neurology.org/cgi/collection/spinal_cord_tumor
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.neurology.org/about/about_the_journal#permissions
Reprints	Information about ordering reprints can be found online: http://n.neurology.org/subscribers/advertise

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2018 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.