**CASE REPORT/CASE SERIES**

**Spinal Spot Sign**

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Introduction: A marker predictive of hematoma expansion in the central nervous system could aid the selection of patients for hemostatic or surgical treatment.

Case Report: Here, we present a 83-year-old patient with acute spinal subdural hematoma with paraparesis progressing to paraplegia. A contrast extravasation within the intraspinal hematoma was visualized on spinal MR indicating active bleeding (spinal spot sign). A second acquisition of contrast-enhanced MR images showed progression of contrast extravasation helping to differentiate active bleeding from spinal arteriovenous malformations/fistula.

Conclusions: A “spinal spot sign” may be important for treatment decisions, notably in patients with incomplete neurological deficits at the time of imaging.

Key Words: spinal hemorrhage, MRI, acute subdural hematoma

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A marker predictive of hematoma expansion in the central nervous system could aid the selection of patients for hemostatic or surgical treatment. One such important surrogate for identification of continued bleeding is contrast extravasation. The “spot sign” refers to 1 or more foci of contrast enhancement within an acute primary parenchymal brain hematoma visible on the source images of CT angiography. Recent data show that spot sign is a marker of increased risk of hemorrhage growth and is predictive of adverse outcome. In the diagnostic workup of acute spinal cord lesions, MRI is most informative and superior to CT imaging in detecting intraspinal hematoma. Here, we present a “spinal spot sign” visualized as a contrast extravasation during spinal MRI in a patient with acute spinal subdural hematoma with paraparesis progressing to paraplegia.

**CASE REPORT**

An 83-year-old man was admitted with clinical deficits of urinary retention and a sensorimotor paraparesis progressing over 2 days. He felt belt-like thoracic pain but no pain in his legs. No focal motor, sensory, and bladder disturbances, epistaxis, skin hematoma, or hematuria had been noted before this acute event, though he experienced sensory, and bladder disturbances, epistaxis, skin hematoma, or hematuria.

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...tion within an acute primary parenchymal brain hematoma visible on the source images of CT angiography. Recent data show that spot sign is a marker of increased risk of hemorrhage growth and is predictive of adverse outcome. In the diagnostic workup of acute spinal cord lesions, MRI is most informative and superior to CT imaging in detecting intraspinal hematoma. Here, we present a “spinal spot sign” visualized as a contrast extravasation during spinal MRI in a patient with acute spinal subdural hematoma with paraparesis progressing to paraplegia.

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**DISCUSSION**

Nontraumatic spinal hematoma is a rare cause of spinal cord compression. MRI gives accurate information not only of the location and extension of the hematoma, but also of the degree of the cord compression and any preexisting lesion that might be the source of the bleeding. Here, we report a complete spinal cord compression at the level of Th8 caused by spontaneous subdural bleedings associated with oral anticoagulation. The extravasation of contrast agent during imaging indicates active bleeding. In the brain, this has been called “spot sign” and recent reports establish the prognostic value of this imaging feature for hematoma progression and clinical outcome. Similarly, our MR images show spinal contrast extravasation as “spinal spot sign.” A spinal spot sign may be important for treatment decisions, notably in patients with incomplete neurological deficits at the time of imaging. In such patients, recovery of clinical deficits might be more likely after surgical decompression on an emergency basis as compared with conservative treatment and time to decompression might be even more important for outcome in patients with a spinal spot sign. A similar observation of contrast extravasation on CT imaging in a case of spontaneous epidural hematoma has been published recently. In the present case, the second acquisition of contrast-enhanced images showing progression of contrast extravasation helps in differentiating active bleeding from spinal arteriovenous malformations/fistula.

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FIGURE 1. A, Sagittal T2-weighted image of the thoracic spinal cord shows multisegment subdural high-signal intensity mass compressing the spinal cord from dorsal on level Th 7-9 corresponding to a subdural spinal hematoma in the hyperacute phase. Cranial and caudal portion of the subdural mass are T2 hypointense, T1 isointense to spinal cord suggestive of acute stage of hematoma. Arrow indicates the level of acquisition of Fig. 1E. B, Sagittal T1-weighted image. Arrow indicates the level of acquisition of Fig. 1F. C, Sagittal T1-weighted image with contrast agent at 10:54 PM showing contrast extravasation at the anterior border of the hematoma on Th8. D, Sagittal T1-weighted image with contrast agent at 11:07 PM showing slight progression of the contrast agent extravasation (spinal spot sign). Arrow indicates the level of acquisition of Fig. 1G. E, Axial T2-weighted image at Th 8 level. F, Axial T1-weighted image at Th 8 level. G, Axial T1-weighted image with contrast Th 8 level.