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IMAGES OF SPINE CARE

Intraspinal neuroblastoma

A 2-year-old girl was admitted because of being unable to walk and urinate for last 2 days. Her medical history was unremarkable. The neurologic examination revealed hyperactive deep tendon reflexes, clonus, and decreased muscle strength of lower extremities (grade 2 of 5). The spinal magnetic resonance imaging acquired to uncover possible spinal cord pathology showed solid epidural mass located at the level of T4–T6 vertebrae of the size 7×17×36 mm. The lesion was heterogenous and hyperintense on T2-weighted image compared with spinal cord (Fig. 1) and had hyperintense rim surrounding that was considered as hemorrhage on T1-weighted image (Fig. 2). The spinal cord was compressed and displaced forward by the lesion and at the level of T1–T8 vertebrae had expansion and T2 hyperintensity consistent with vasogenic edema. The spinous process of T5 vertebra was invaded. The serum level of neuron-specific enolase was positive as 63.5 ng/mL. The bone marrow aspiration revealed uniform cells with large nucleus and thin cytoplasm forming rosette formation. T5–T9 laminectomy and total resection of the lesion were performed. On histopathology, the lesion was proved to be neuroblastoma. After surgery, patient started to walk and loss of strength at lower extremities improved. Immediately, chemotherapy was initiated. On control spinal magnetic resonance imaging acquired 3 months later after the surgery, neither recurrence nor residue was detected, but at the level of T4–T6, spinal cord was thin and hyperintense on T2-weighted image consistent with myelomalacia (Fig. 3). Currently, the patient is undergoing chemotherapy, and autologous hematopoietic stem transplantation is being considered.

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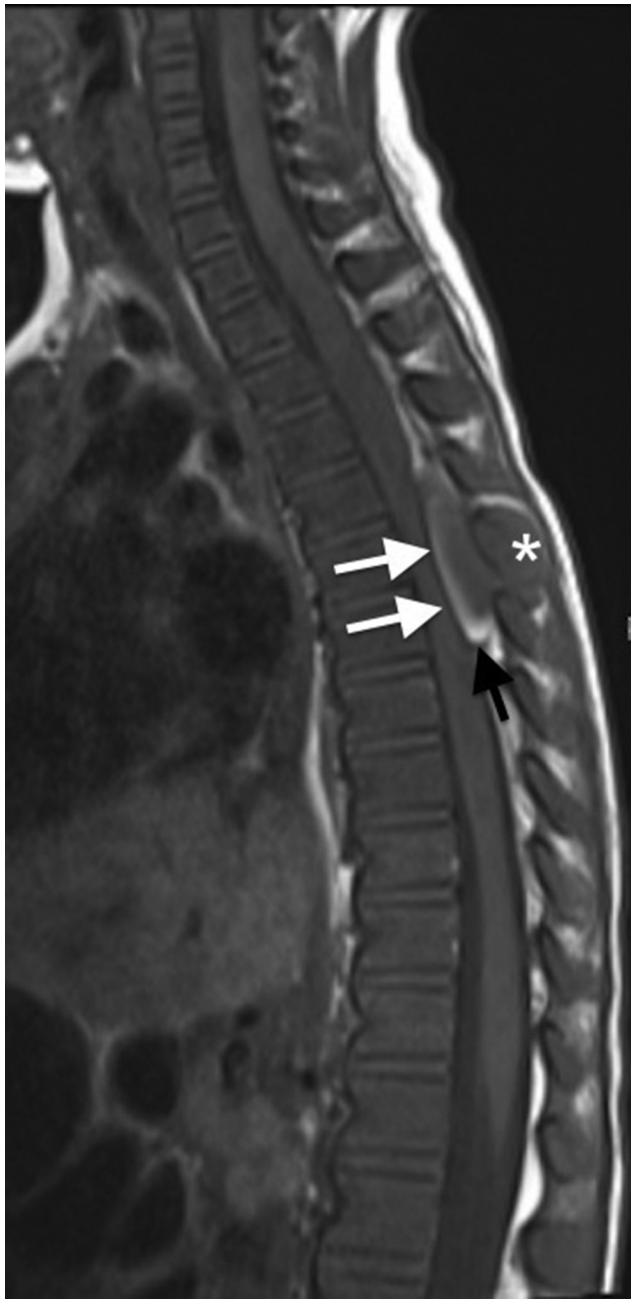

Fig. 1. T1-weighted magnetic resonance image revealed an epidural mass at the level of T4–T6 vertebrae (white arrows). The lesion had hyperintense rim considered to be hemorrhage (black arrow). Note the invasion and expansion of spinous process of T5 vertebra (asterisk).

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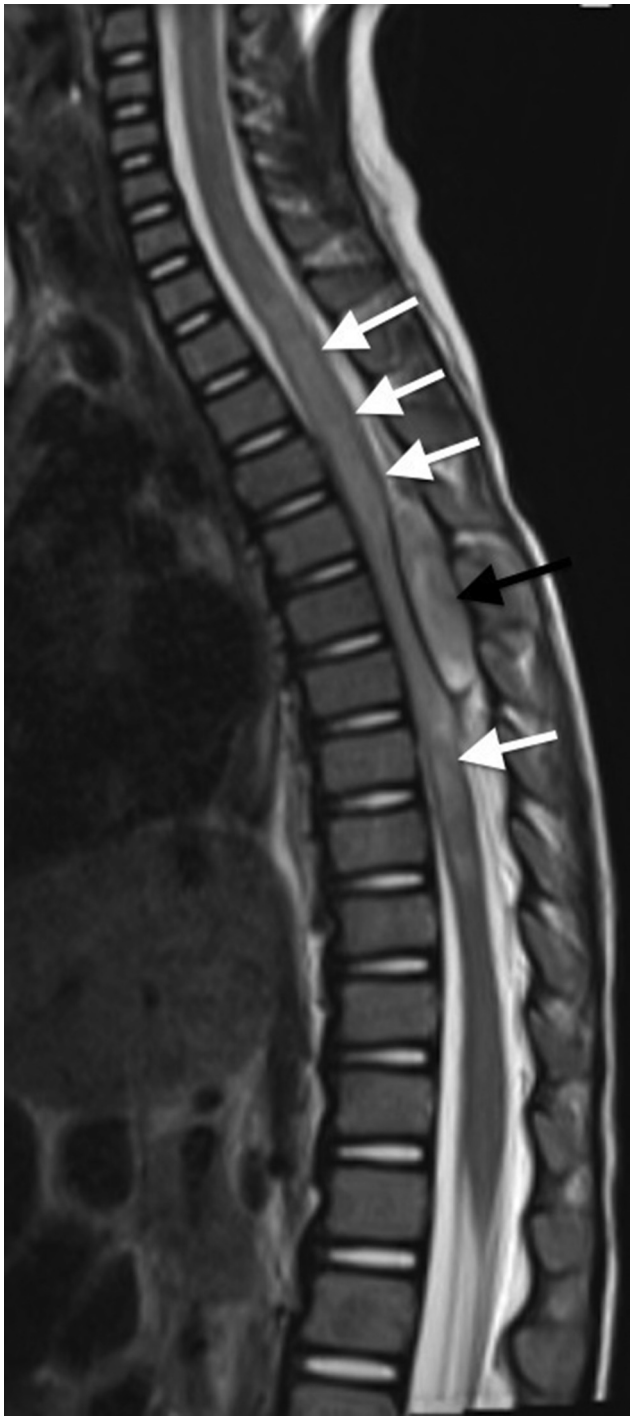

Fig. 2. The lesion was heterogenous and hyperintense on T2-weighted magnetic resonance image (black arrow), and the spinal cord had vasogenic edema at the level of T1–T8 (white arrows).

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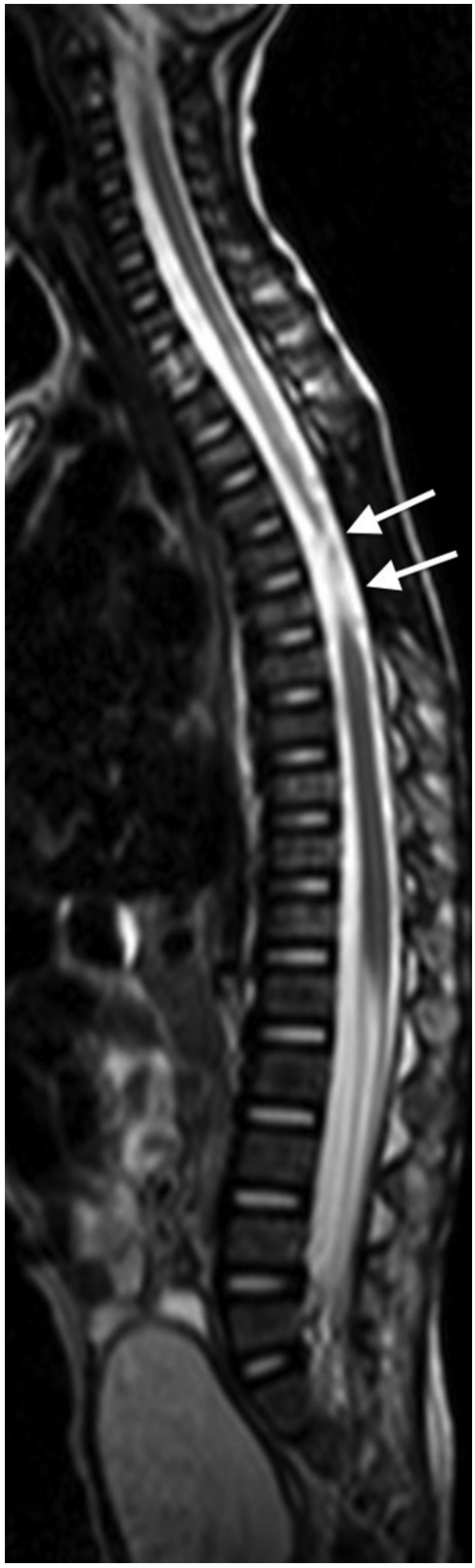

Fig. 3. T2-weighted image acquired 3 months later after surgery revealed no recurrence or residue but myelomalacia of the spinal cord (arrows).

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