

Teaching NeuroImage: Acute spastic monoplegia secondary to spinal epidural venous engorgement in pregnancy

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A 20-year-old, 33-week-pregnant woman presented with 2 days of backache and left leg weakness. She denied sphincter or sensory disturbance. Examination revealed proximal left leg weakness, bilateral hyperreflexia, and extensor plantars. A cesarean section was performed 5 days later. Two days postpartum, neurologic examination results returned to normal. Spine/abdomen MRIs before (figure, A–C) and after (figure, D–F) are presented.

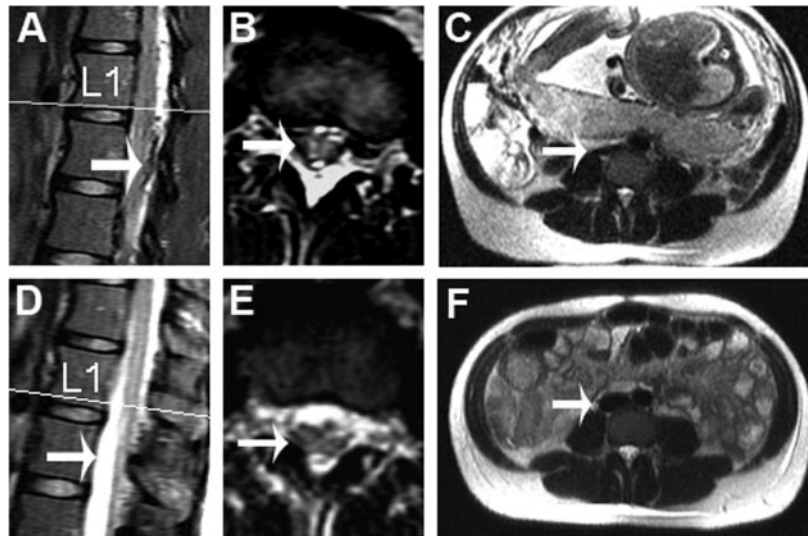
Increased blood flow to the epidural venous plexus occurs due to compression on the inferior vena cava (IVC) by the pregnant uterus or by increased abdominal pressure.¹ This may present as

acute spastic paraparesis, but may also be asymptomatic,² which can be explained by the severity of IVC compression. MRI is helpful in excluding cord pathology, assuring favorable outcome.

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Figure Spine/abdomen MRIs pre- and postpartum



(A) T2-weighted MRI of thoracic and lumbar spine revealing prominent epidural and paravertebral vessels in the lower thoracic and lumbar spinal canal consistent with vascular congestion. (B) Transverse T2-weighted image of the cord at level of T12-L1 showing increased signal, likely representing cord edema (white arrow). (C) MRI of the abdomen highlights compression of the inferior vena cava (IVC) (white arrow). (D) Repeated T2-weighted MRI of thoracic and lumbar spine showing resolution of vascular congestion. (E) Repeated transverse T2-weighted image of the cord at level of T12-L1 showing absence of the previously noted hyperintensity (white arrow). (F) MRI of the abdomen showing resolution of the IVC compression (white arrow).

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Disclosure: The authors report no disclosures.

Neurology®

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Neurology 2008;71:e1

DOI 10.1212/01.wnl.0000316310.85132.b3

This information is current as of June 30, 2008

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