A 75-year-old woman developed low back pain, weakness of the lower extremities, and urinary retention. On day 7 after the onset of symptoms, she was brought to the emergency department by an ambulance because of progressive weakness of both lower extremities. Spine MRI showed longitudinally extensive spinal cord lesion (LESCL) at the Th8-Th11 spinal cord level and flow voids around the lesions. Lumbar puncture revealed a normal opening pressure, yellowish appearance, pleocytosis with polymorphonuclear predominance, and decreased cerebrospinal fluid (CSF) glucose levels. Based on the rapidly progressing myelopathy, LESCL, and CSF findings, we initially diagnosed the patient with myelitis and administered acyclovir and high-dose intravenous immunoglobulin on day 7. Spine MRI with gadolinium-enhancement showed longitudinally extending flow voids of the thoracic cord, and digital subtraction arteriogram (DSA) revealed arteriovenous shunt on the dura with dilated and tortuous intradural veins. We finally diagnosed her with spinal dural arteriovenous fistula (SDAVF). Cases of SDAVF might be initially misdiagnosed as myelitis because of showing rapid progressive myelopathy, pleocytosis with polymorphonuclear predominance, and decreased CSF glucose levels. Lumbar puncture and steroid administration for the cases of SDAVF could aggravate the patient's neurological symptoms. Therefore, lumbar puncture and initiation of immunotherapy should be avoided until SDAVF is completely excluded in patients with suspected myelitis on spine MRI without gadolinium-enhancement, even if their neurological symptoms progress rapidly [1].

2015

Simal Julián et al. present the case of a 68-year-old man with an sDAVF fed by the right T7 segmentary artery. Indocyanine green videoangiography (IGV) was initially performed with the presumptive fistula feeder occluded for less than 1 minute, which provided both diagnostic and postexclusion control in one procedure. This technique therefore is reversible by not prolonging vascular exclusion times. Discussion IGV in negative is an extremely visual and intuitive procedure that represents an improvement over conventional IGV. Studies with larger sample sizes are necessary to determine whether IGV in negative can further reduce the need for postoperative digital subtraction angiography [2].

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http://www.ajnrblog.org/wp-content/uploads/Figure1.jpg

A 30-year-old woman presented with progressive worsening of weakness in both legs during several months. (A) Sagittal T2WI showed a vascular lesion at the T11 spinal cord. Note the diffuse spinal cord edema (venous congestive myelopathy, VCM) with dilated perimedullary veins surrounding the cord. (B) Spinal angiogram showed a spinal cord arteriovenous malformation supplied by a pial feeder of the right L2 lumbar artery. (C) The VCM improved three weeks after embolization of the two pial feeders, as did the patient’s symptoms [3].

1)
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3)
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