Teaching NeuroImages: Variant of Guillain-Barré syndrome with spinal cord involvement

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Figure Spinal MRI 1 week after symptom onset

MRI of the spine demonstrates longitudinal (A, sagittal plane) T2 hyperintensities (C7/T1 to T3) affecting the dorsal columns more than the lateral columns (B, axial image at the level of T2).

A 48-year-old man presented with ascending sensory deficits over 12 hours, followed by urinary retention. He had areflexia, mild lower extremity weakness, sensory ataxia, and a T2 sensory level. Smooth pursuit was impaired, but cranial nerves were otherwise normal. Diagnostic evaluation demonstrated CSF cytoalbuminologic dissociation and demyelinating polyneuropathy fulfilling the electrodiagnostic criteria for Guillain-Barré syndrome (GBS).¹ Laboratory evaluation had normal results, including vitamin B₁₂; anti-neuromyelitis optica, antineuronal, and ganglioside antibodies; and oligoclonal bands. Myelopathy was confirmed on MRI (figure). This case highlights that acquired acute demyelination may rarely affect the peripheral and CNS simultaneously (GBS–transverse myelitis overlap syndrome), likely related to common autoimmune-mediated pathomechanisms.²

AUTHOR CONTRIBUTIONS

Dr. C. Gächter: drafting of manuscript and analysis/interpretation of general neurologic findings. Dr. J. Petersen: interpretation of electroneurography findings, critical revision of the manuscript for important intellectual content. Dr. U. Schwarz: analysis and interpretation of clinical findings. Dr. A. Pangalu: analysis and interpretation of MRI. Dr. A. Tarnutzer: analysis and interpretation, study supervision, critical revision of the manuscript for important intellectual content.

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DISCLOSURE

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