SPINAL CORD IMAGING IN SPASTIC PARAPARESIS: ARE WE CUTTING IT THIN ENOUGH?

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Introduction: Spinal dural arteriovenous fistula (SDAVF) is a rare condition, but accounts for great disability in those affected. Despite improvements in spinal imaging, SDAVF diagnosis is often difficult or masked by more common entities.

Case report: A 42 year-old-woman, with a history of ileal resection 4 years prior, presented with a 6-month course of progressive walking difficulty, denying any sensory or bladder complaints. Physical examination revealed spastic paraparesis, brisk deep-tendon reflexes in the lower limbs, bilateral Babinsky sign and bilateral foot drop. Blood chemistry was normal except for low vitamin B12 levels. Her electromyogram was compatible with sensorimotor axonal polyneuropathy and cervico-dorso-lumbar spinal MRI was normal. Parenteral cyanocobalamin supplementation was initiated and the patient was discharged with a diagnosis of polyneuropathy and probable subacute combined degeneration. In the following months, the patient's polyneuropathic gait improved, but the spastic paraparesis was unchanged. Repeat spinal cord MRI was reported as normal. Given the lack of improvement, a SDAVF was suspected. 3T Spinal MR-angiography was performed using 0.9 mm sections, revealing dilated vessels in the spinal periphery from T11 to L2 levels. Digital subtraction angiography confirmed the diagnosis and the patient is currently waiting surgery.

Conclusion: We describe a case of a SDAVF with superimposed vitamin B12 deficiency, whose diagnosis required extra-thin cuts of MR-angiography. SDAVFs are potentially reversible causes of myelopathy, thus emphasizing the importance of their early identification.