Non-adjacent Sacral Dural Arteriovenous Fistula and Thoracolumbar Spinal Arteriovenous Malformation

A 42-year female presented with a 3-month history of bilateral leg weakness and diminished sensation. Digital subtraction angiography (DSA) showed a sacral dural arteriovenous fistula (sDAVF), which was supplied via the right lateral sacral artery. The fistula, located at the level of L5-S1, was drained via the posterior spinal vein. Spinal magnetic resonance imaging (MRI) confirmed same finding. The patient underwent a right L5-S1 sDAVF embolisation on admission, and moderate post-procedure clinical improvement was noted. Interventional therapy improved her bilateral lower extremity numbness, and muscle strength improved the following day. Three months later, our patient returned to hospital complaining of bilateral lower extremity skin hypersensitivity. Her bilateral muscle strength was graded 4+. DSA findings showed no recanalisation of the original fistula post-admission. Spinal DSA subsequently confirmed an arteriovenous malformation (AVM) at L1 that was supplied via anterior spinal artery. After careful evaluation, we undertook conservative treatment, and her symptoms resolved.

To avoid a missed diagnosis, multimodal imaging should be performed, and the consistency of the arterial blood supply, position of the malformed section, and shape of the drainage vein should be evaluated, to avoid the misdiagnosis of concomitant AVM.

CONFLICT OF INTEREST:
Authors declared no conflict of interest.

AUTHORS’ CONTRIBUTION:
GZ: Drafted the manuscript.
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REFERENCES
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