E-Poster

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Unmasking the Spinal Dural Arteriovenous Fistula to Improve Diagnosis and Outcomes in Rehabilitation

Topic: Diagnosis

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BACKGROUND

Despite being the most common spinal vascular malformation (60-80%), spinal dural arteriovenous fistula (SDAVF) is an infrequent condition (with an incidence of 5-10 cases per million inhabitants). It typically affects men and presents with sensory and motor disturbances in the limbs and sphincter control issues. It is less common for it to begin as lower back pain or radicular pain. This acquired lesion occurs due to a shunt between the spinal venous return system and a radiculomeningeal artery located at the exit of a spinal nerve root, leading progressively to venous engorgement and spinal dural ischemia. Compared to other causes of spinal cord injury, the nonspecific and insidious clinical presentation of SDAVF complicates early diagnosis, making it a significant cause of disability.

CASE DESCRIPTION

Over four months, a 58-year-old woman with nonspecific lower back pain developed paresthesias in the right lower limb, followed by lumbar radiculopathy. After a month, she was admitted with a spinal level at T12 and a G5M3B2 score on the Modified Aminoff-Logue disability scale (MAL): paraplegia and total bladder and bowel incontinence. She was diagnosed with SDAVF at the level of the right T11 radicular artery. Despite undergoing surgery, the delay in diagnosis was crucial to the functional prognosis, with no improvement observed three months after starting rehabilitation.

Over three months, a 58-year-old man suffered nonspecific lower back pain with the typical clinical presentation of canal stenosis. A week later, he was admitted with a spinal level at L1 and a G4M3B1 score on the MAL disability scale: need for a walker, total urinary incontinence and persistent constipation. He was diagnosed with SDAVF at the level of the right T7 radicular artery. Two months after starting rehabilitation, the patient walked with a walker and had recovered full sphincter control (G4M0B0).

DISCUSSION

These cases highlight the importance of considering SDAVF in patients with persistent lumbar pain and progressive neurological symptoms. Despite being an infrequent pathology, this cause of spinal cord injury requires a high index of diagnostic suspicion due to the frequent delay in diagnosis and the significant impact on the functional prognosis of patients.

CONCLUSION

Whether from the primary care physician's office or specialized care, SDAVF should be considered in the differential diagnosis of persistent lumbar pain and progressive neurological symptoms to avoid treatment delays and improve the functional prognosis of patients.

Statement of Disclosures

None

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