

# Lumbosacral Dural Venous Sinus

Although multifocal spinal arteriovenous malformations (AVMs) have been reported before, the present case is the first case of 2 different types, including 1 perimedullary arteriovenous fistula and 2 spinal dural arteriovenous fistulas of lumbosacral AVMs, coexisting in 1 patient. We also report the use of hybrid techniques in treatment of concomitant lumbosacral spinal AVMs. CASE DESCRIPTION:

A 65-year-old man presented with a 4-year history of progressive sensory, motor, and sphincter dysfunction. Spinal magnetic resonance imaging and digital subtraction angiography showed 2 spinal dural arteriovenous fistulas (fed by the right L2 lumbar artery and the right lateral sacral artery, respectively) and 1 perimedullary arteriovenous fistula (fed by the filum terminale artery from the left L2 lumbar artery [i.e., filum terminale arteriovenous fistulas]). A hybrid technique was used to perform embolization of the right L2 spinal dural arteriovenous fistula and microsurgery of the L5 level filum terminale vein. The patient was asymptomatic 1 year later. CONCLUSIONS:

Multifocal spinal vascular malformations may coexist in 1 case, and standardized spinal digital subtraction angiography, including the bilateral internal iliac arteries and median sacral artery, should be performed to avoid a missed diagnosis. The concomitant phenomenon indicates that venous hypertension may be a risk factor for the development of arteriovenous fistulas. Hybrid techniques are effective in treatment of multifocal and complex spinal AVMs <sup>1)</sup>.

<sup>1)</sup>

Li J, Li G, Bian L, Hong T, Yu J, Zhang H, Ling F. Concomitant Lumbosacral Perimedullary Arteriovenous Fistula and Spinal Dural Arteriovenous Fistula. World Neurosurg. 2017 Sep;105:1041.e7-1041.e14. doi: 10.1016/j.wneu.2017.06.149. Epub 2017 Jul 4. PubMed PMID: 28684369.

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