Teaching NeuroImage: Arteriovenous Fistula of Cauda Equina Fed by the Proximal Radicular Artery

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Jun Lin: Drafting/revision of the manuscript for content, including medical writing for content; Major role in the acquisition of data
Xiaodong Niu: Drafting/revision of the manuscript for content, including medical writing for content; Study concept or design
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Abbreviations
AVF: Arteriovenous fistula
ASA: Anterior spinal artery
MRI: Magnetic resonance imaging
PRA: Proximal radicular artery

MAIN TEXT
A 66-year-old man presented with a 2-year history of weakness and numbness in his lower limbs and occasional urinary incontinence. Spinal MRI showed spinal edema and prominent flow voids. Selective angiography of right T10 segmental artery revealed an arteriovenous fistula of cauda equina (CEAVF) fed by the proximal radicular artery (PRA), the downward extension of anterior spinal artery (Figure 1). Intraoperatively, the fistula, draining vein, and feeding artery running along a nerve root were identified. The fistula was resected successfully (Figure 2) and the symptoms gradually improved. Spinal CEAVF is extremely rare. This case demonstrates the microscopic angioarchitecture of CEAVF.
### Appendix 1. Authors

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### References


Figure Legends:

Figure 1. Preoperative Spinal MRI and DSA

(A, B) Preoperative MRI shows spinal edema and prominent flow voids (arrows). (C, D) Angiography shows a CEAVF (arrowhead) fed by the PRA.

Figure 2. Intraoperative and Postoperative Images

(A, B) Intraoperative images show the microscopic angioarchitecture of CEAVF. The filum terminale (FT) is not involved. (C, D) Postoperative MRI reveals reduced edema and flow voids.
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