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

Author(s):
Conghui Xu, MD; Jun Lin, MD; Xiaodong Niu, MD; Jin Li, MD, PhD

Equal Author Contributions:
Conghui Xu and Jun Lin are co-first authors.

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Corresponding Author:
Jin Li
lijinhuaxi@126.com

Affiliation Information for All Authors: 1. Department of Radiology, Chengdu Shangjin Nanfu Hospital, Sichuan University, Chengdu, PR China; 2. Department of Operating Room, Chengdu Shangjin Nanfu Hospital, Sichuan University, Chengdu, China; 3. Department of Neurosurgery, West China Hospital of Sichuan University, Chengdu, China.

Contributions:
Conghui Xu: Drafting/revision of the manuscript for content, including medical writing for content; Major role in the acquisition of data
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
Jin Li: 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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<th>Name</th>
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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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