Intramedullary hemorrhage from a thoracic dural arteriovenous fistula

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Figure 1 Preoperative spinal MRI

(A, B) Thoracic and (C, D) lumbar T2-weighted and contrast-enhanced MRI show T7-8 intramedullary hemorrhage, extensive spinal edema from T3 to T11 (thin arrows), and enhanced perimedullary veins (thick arrows).

A 64-year-old woman presented with sudden lower back pain and loss of power in both legs (grade 0/5). Spinal MRI demonstrated a focal abnormal area at T7-8 level, consistent with intramedullary hemorrhage (figure 1). Selective angiography revealed a right T9 spinal dural arteriovenous fistula (DAVF) and an associated venous varix (figure 2). The fistula was treated successfully with surgery. The strength of the lower limbs improved postoperatively (grade 2/5). Intramedullary hemorrhage caused by spinal DAVF is extremely rare.^{1,2} The presence of venous varix may be the cause of hematomyelia. This case shows clearly the associated venous varix with 3D images.

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Disclosure

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Figure 2 Preoperative spinal angiography

(A) Anteroposterior 2D and (B) lateral 3D angiography show a spinal dural arteriovenous fistula (asterisk) arising from the right T9 intercostal artery (double thin arrows) and an associated venous varix within the draining radiculomedullary vein (thick arrow). (C) Reconstructed 3D angiography and (D) corresponding schematic illustration demonstrate the associated venous varix (arrowhead) of the draining vein.

Appendix Authors

Name	Location	Contribution
Xiaodong Niu, MD	Sichuan University, Chengdu, China	Designed the study, collected and analyzed the data, drafted the manuscript
Hao Liu, MD	Sichuan University, Chengdu, China	Data collection and analysis, drafted and revised

Appendix (continued)

Name	Location	Contribution
Jin Li, MD, PhD	Sichuan University, Chengdu, China	Critically reviewed and revised the manuscript

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