Teaching NeuroImages: A Ruptured Lumbar Disc Mimicking Spinal Tumor

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Figure 1 MRI of a Ruptured Lumbar Disc Mimicking a Spinal Tumor

Sagittal T1-weighted nonenhanced (A) and gadolinium-enhanced (B) MRI of the lumbar spine reveal a 2 × 1.2 cm nodule (asterisk) with ring enhancement (arrow) at L5-S1 level compressing the thecal sac. Axial T1-weighted nonenhanced (C) and enhanced (D) MRI at L5-S1 level show near-total obliteration of the spinal canal by the nodule (asterisks).

A 47-year-old healthy man presented with intermittent low back pain radiating to the left calf; within 1 month, the pain worsened at night and disturbed his sleep. Examination showed paresthesia in left lateral calf, weakness in left ankle plantarflexion, and decreased ankle reflex. Neuroimaging revealed near-total obliteration of the spinal canal by a 2 × 1.2 cm nodule at L5-S1 level with ring enhancement under gadolinium-enhanced MRI (figure 1). The patient underwent surgery for a presumed spinal tumor. The intraoperative and pathologic findings revealed ruptured intervertebral disc without neoplasm (figure 2). The clinical presentation and image characteristics of a large ruptured disc can mimic a spinal tumor.1,2

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Figure 2 Intraoperative and Pathologic Findings of the Ruptured Disc

(A) Intraoperative photograph reveals a nodule (asterisk) locating between the S1 and S2 rootlets and displacing both rootlets. DS = dural sac. (B) Pathology reveals fibrous tissue with colonization of chondrocytes (arrow) and infiltration of inflammatory cells (magnification), compatible with degenerated intervertebral disc.

Appendix Authors

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References
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