

# Teaching NeuroImages: A Ruptured Lumbar Disc Mimicking Spinal Tumor

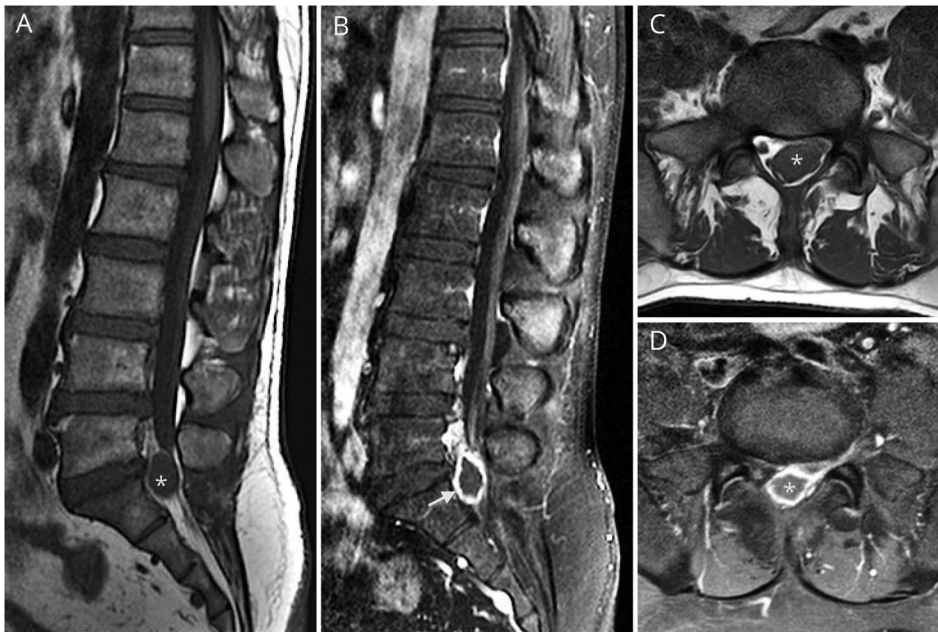
Chia-En Wong, MD, BS, Po-Hsuan Lee, MD, Chi-Chen Huang, MD, Hui-Wen Chen, MD, Chih-Hao Tien, MD, Chih-Yuan Huang, MD, PhD, and Jung-Shun Lee, MD, MSc

*Neurology*® 2021;96:e3003-e3004. doi:10.1212/WNL.00000000000011720

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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.<sup>1,2</sup>

## Study Funding

No targeted funding reported.

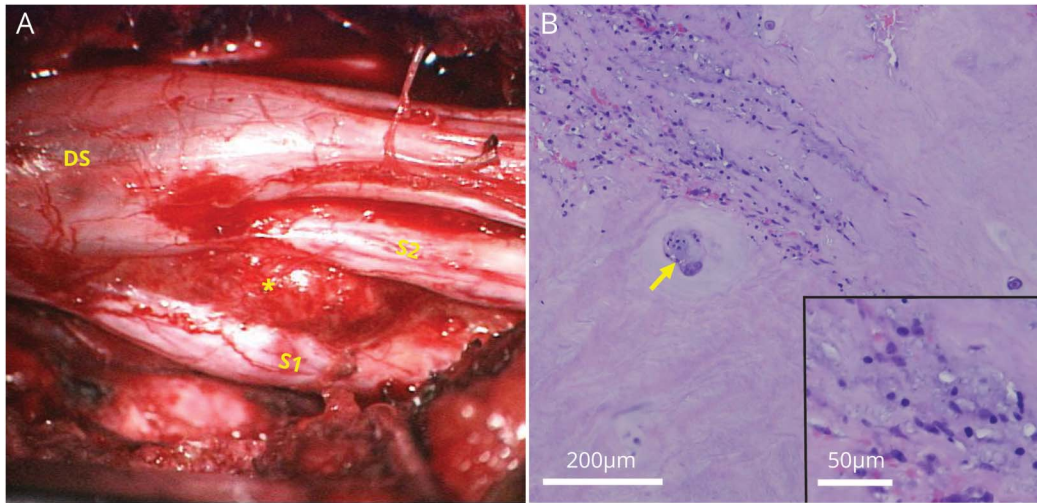
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**Figure 2** Intraoperative and Pathologic Findings of the Ruptured Disc



(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.

**Disclosure**

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org/N](http://Neurology.org/N) for full disclosures.

**Appendix** Authors

Name	Location	Contribution
<b>Chia-En Wong, MD, BS</b>	National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan	Designed and conceptualized study, analyzed and interpreted the data, drafted the manuscript
<b>Po-Hsuan Lee, MD</b>	National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan	Analyzed and interpreted the data, revised the manuscript
<b>Chi-Chen Huang, MD</b>	National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan	Analyzed and interpreted the data, revised the manuscript
<b>Hui-Wen Chen, MD</b>	National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan	Analyzed and interpreted the data, revised the manuscript

**Appendix** (continued)

Name	Location	Contribution
<b>Chih-Hao Tien, MD</b>	National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan	Analyzed and interpreted the data, revised the manuscript
<b>Chih-Yuan Huang, MD, PhD</b>	National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan	Analyzed and interpreted the data, revised the manuscript
<b>Jung-Shun Lee, MD, MSc</b>	National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan	Designed and conceptualized study, analyzed and interpreted the data, revised the manuscript, supervised the study, final approval

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## Teaching NeuroImages: A Ruptured Lumbar Disc Mimicking Spinal Tumor

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*Neurology* 2021;96:e3003-e3004 Published Online before print February 16, 2021

DOI 10.1212/WNL.00000000000011720

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