Conjoined nerve root: case illustration

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<https://thejns.org/doi/abs/10.3171/2019.12.SPINE191226>

KEYWORDS conjoined nerve root; developmental; anomaly; lumbar

THIS 27-year-old man presented with a right-sided, congenital hemivertebra between L4 and L5 associated with spondylolisthesis, lumbar scoliosis, and severe left L4 radiculopathy resistant to conservative management. He was taken to the operating room to undergo a left L4–5 transforaminal lumbar interbody fusion (TLIF), and during surgery, a conjoined L4–5 nerve root was encountered (Fig. 1). This was recognized when trying to access Kambin's triangle.¹ This anomaly was not evident on preoperative imaging (Supplemental Fig. 1) and precluded a safe TLIF. Because the TLIF graft could not be inserted, the patient instead underwent a wide left L4–5 laminectomy with total facetectomy for decompression of the left L4 nerve root, and an instrumented fusion was performed. Postoperatively, the patient noted significant improvement in his leg pain.

References

1. Kambin P, Sampson S. Posterolateral percutaneous suction-excision of herniated lumbar intervertebral discs. Report of interim results. *Clin Orthop Relat Res*. 1986;(207):37–43.

Disclosures

Dr. Chan reports that he has received non–study-related research support from Orthofix Medical, Inc.

Dr. Mummaneni reports that he is a consultant for the following: DePuy Synthes, Stryker, and Globus; he has received funding for non–study-related clinical or research efforts that he oversees from NREF and from AOSpine. He has received royalties from DePuy Synthes, Thieme Medical Publishers, and Springer. Dr. Chou reports being a consultant for Medtronic and Globus; he reports receiving a small royalty from Globus.

Author Contributions

Conception and design: Chan, Mayer, Chou. Acquisition of data: Chan, Mayer, Chou. Analysis and interpretation of data: Chou. Drafting the article: all authors. Critically revising the article: all authors. Reviewed submitted version of manuscript: all authors. Study supervision: Chou.

Supplemental Information

Online-Only Content

Supplemental material is available with the online version of the article.

Supplemental Fig. 1. <https://thejns.org/doi/suppl/10.3171/2019.12.SPINE191226>.

SUBMITTED October 11, 2019. ACCEPTED December 3, 2019.

INCLUDE WHEN CITING Published online January 24, 2020; DOI: 10.3171/2019.12.SPINE191226.

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FIG. 1. **A:** Anteroposterior 36-inch radiograph demonstrating lumbar scoliosis. **B:** Coronal CT scan showing the congenital hemivertebra (labeled *H*) between L4 (labeled 4) and L5 (labeled 5). **C:** Sagittal T2-weighted MR image demonstrating L4–5 spondylolisthesis (*left*). Axial T2-weighted MR image showing severe left L4 foraminal stenosis (*right*). The yellow scout line on the left panel shows the level of the corresponding axial image on the right panel. **D:** Intraoperative microscopic image demonstrating the conjoined L4–5 nerve root complex. The upper left corner of the image is cephalad and the bottom right corner of the image is caudal. The pedicle screw—inserted into the left L5 pedicle—is seen in the image. The yellow arrow and white arrow indicate the obscured L4–5 disc space and the thecal sac, respectively. Figure is available in color online only.