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# Teaching Neuro*Images*: Intraspinal synovial cyst causing Brown-Séquard syndrome

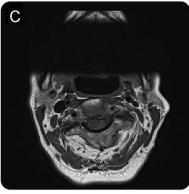
Uncommon cause of a classic syndrome

Grayson Beecher, MD Trevor Kotylak, MD Wendy S. Johnston, MD

Correspondence to Dr. Beecher: beecher@ualberta.ca Figure Intraspinal cervical synovial cyst with right hemicord compression at C2-3 level







Sagittal T2 (A), axial T2 (B), and axial T1 (C) images demonstrate a homogenous extradural cystic lesion (high signal on T2, low signal on T1) within the anterior epidural space to the right of midline at C2-3, causing moderate compression of the right hemicord and constituting the clinical Brown-Séquard syndrome.

A 65-year-old woman with osteoarthritis presented with 6 weeks of insidiously worsening numbness in the left hemibody and weakness in the right arm and leg. Examination revealed pyramidal weakness in the right arm and leg with hyperreflexia, right Babinski sign, left-sided C4 sensory level to pinprick and temperature, and reduced proprioception in the right extremities. Cervical spine MRI revealed a facet joint synovial cyst at C2-C3 compressing the right hemicord (figure). This was excised, with only mild numbness at 6 months postoperatively. Symptomatic intraspinal cervical synovial cysts are rare and an uncommon cause of myelopathy, typically occurring at C7-T1.<sup>1,2</sup>

### **AUTHOR CONTRIBUTIONS**

Grayson Beecher performed the patient's clinical assessment, wrote the manuscript, and created the figure. Trevor Kotylak reported the imaging findings, provided the figure images, and edited the manuscript. Wendy S. Johnston assisted in the patient's clinical assessment and performed a critical revision of the manuscript for intellectual content.

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#### **DISCLOSURE**

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

#### **REFERENCES**

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