

References

1. Noto TJ, Johnson LW, Krone R, et al. Cardiac catheterization 1990: a report of the registry of the society for cardiac angiography and interventions. *Cathet Cardiovasc Diagn* 1991;24:75–83.
2. Lazar JM, Uretsky BF, Denys BG, et al. Predisposing risk factors and natural history of acute neurologic complications of left-sided cardiac catheterization. *Am J Cardiol* 1995;75:1056–1060.
3. Alio J, Esplugas E, Arboix A, et al. Cerebrovascular events in cardiac catheterization. *Stroke* 1993;24:1264.
4. Brown DL, Topol EJ. Stroke complicating percutaneous coronary revascularization. *Am J Cardiol* 1993;72:1207–1209.
5. Dorros G, Cowley MJ, Simpson J, et al. Percutaneous transluminal coronary angioplasty: a report of complications from the National heart, Lung, and Blood Institute PTCA Registry. *Circulation* 1983;67:723–730.
6. Brelau CE, Roubin GS, Leimgruber PP, et al. In-hospital morbidity and mortality in patients undergoing elective coronary angioplasty. *Circulation* 1985;72:1044–1052.
7. Wijman C, Kase CS, Jacobs AK, et al. Cerebral air embolism as a cause of stroke during cardiac catheterization. *Neurology* 1998;51:318–319.
8. Tunick PA, Rosenzweig BP, Katz ES, et al. High risk for vascular events in patients with protruding aortic atheroma: a prospective study. *J Am Coll Cardiol* 1994;23:1085–1090.
9. Tegeler CH, Shi F, Morgan T. Carotid stenosis in lacunar stroke. *Stroke*. 1991;22:1124–1128.
10. Libman RB, Wirkowski E, Neystat M, et al. Stroke associated with cardiac surgery: determinants, timing and stroke subtypes. *Arch Neurol* 1997;54:83–87.

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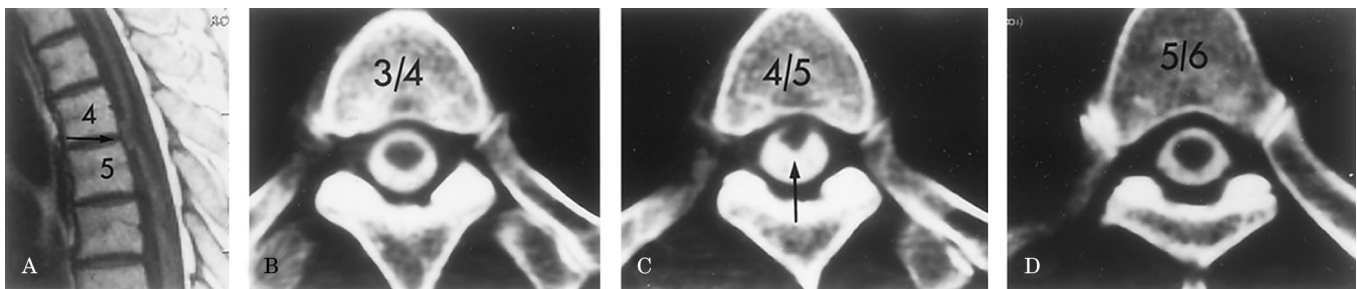


Figure. (A) Preoperative T1-weighted MRI (sagittal view) shows the ventral protrusion of the spinal cord as an abrupt ventral curve at the T4–5 level. (B, C, and D) Preoperative CT myelogram (axial view) demonstrates ventral displacement of the spinal cord at the T4–5 level without dorsal intradural cysts or tumors.

Spontaneous spinal cord herniation

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A 53-year-old man presented with a Brown–Séquard syndrome at the left T10 level with a chronic progressive course for 10 years. T1-weighted MRI (figure, A) revealed forward protrusion of the spinal cord at the T4–5 level. A CT myelogram revealed ventral displacement of the spinal cord without a subarachnoid cyst (see the figure, B to D). With the diagnosis of spontaneous spinal cord herniation due to a ventral dural defect, the patient underwent a

surgical procedure for correction of the herniated spinal cord. His symptoms improved gradually. Because spontaneous spinal cord herniation is rare but treatable,^{1,2} we should always consider this possibility for patients with progressive myelopathy.

1. Marshman LA, Hardwidge C, Ford–Dunn SC, Olney JS. Idiopathic spinal cord herniation: case report and review of the literature. *Neurosurgery* 1999;44:1129–1133.
2. Tekkok IH. Spontaneous spinal cord herniation: case report and review of the literature. *Neurosurgery* 2000;46:485–491; discussion 491–492.

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