

 IMAGES OF SPINE CARE

Intramedullary contrast injection in the setting of a split spinal cord

A 40-year-old man with spina bifida, diastematomyelia, and a resected right hemicord epidermoid cyst presented for follow-up. Following computed tomography (CT) myelography—performed because of patient's incompletely removed bladder stimulator—he reported left lower extremity pain. Imaging revealed a small focus of contrast within the left hemicord at L1–L2, suggestive of intramedullary injection (Figs. 1 and 2). The patient was treated conservatively with steroids and continues to recover. Diastematomyelia or split spinal cord is rare [1–3]. Magnetic resonance imaging is the imaging modality of choice; however computed tomography myelography may be used when magnetic resonance imaging is contraindicated [2,4]. Intramedullary contrast injection during myelography is uncommon. Subsequent neurologic deficits can develop shortly after injection

but are addressed with conservative management and resolve rapidly [5,6].

References

- [1] Huang SL, He XJ, Xiang L, Yuan GL, Ning N, Lan BS. CT and MRI features of patients with diastematomyelia. *Spinal Cord* 2014;52:689–92.
- [2] Borkar SA, Mahapatra AK. Split cord malformations: a two years experience at AIIMS. *Asian J Neurosurg* 2012;7:56–60.
- [3] Moriya J, Kakeda S, Korogi Y, Soejima Y, Urasaki E, Yokota A. An unusual case of split cord malformation. *AJNR Am J Neuroradiol* 2006;27:1562–4.
- [4] Ozdoba C, Gralla J, Rieke A, Binggeli R, Schroth G. Myelography in the age of MRI: why we do it, and how we do it. *Radiol Res Pract* 2011;2011:329017.
- [5] Simon SL, Abrahams JM, Sean Grady M, Leroux PD, Rushton SA. Intramedullary injection of contrast into the cervical spinal cord during cervical myelography: a case report. *Spine* 2002;27:E274–7.
- [6] Servo A, Laasonen EM. Accidental introduction of contrast medium into the cervical spinal cord. A case report. *Neuroradiology* 1985;27: 80–2.

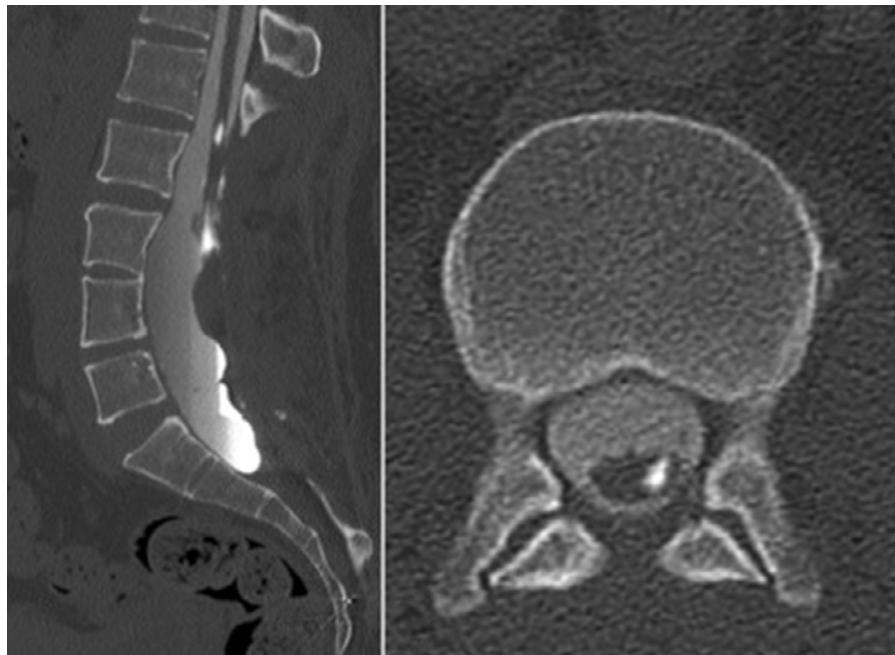


Fig. 1. (Left) Sagittal CT image of the lumbar spine revealing a low-lying cord, partially tethered to the overlying soft tissues posterior to L3. (Right) Axial image at L1–L2 level showing a small focus of contrast within the left hemicord.

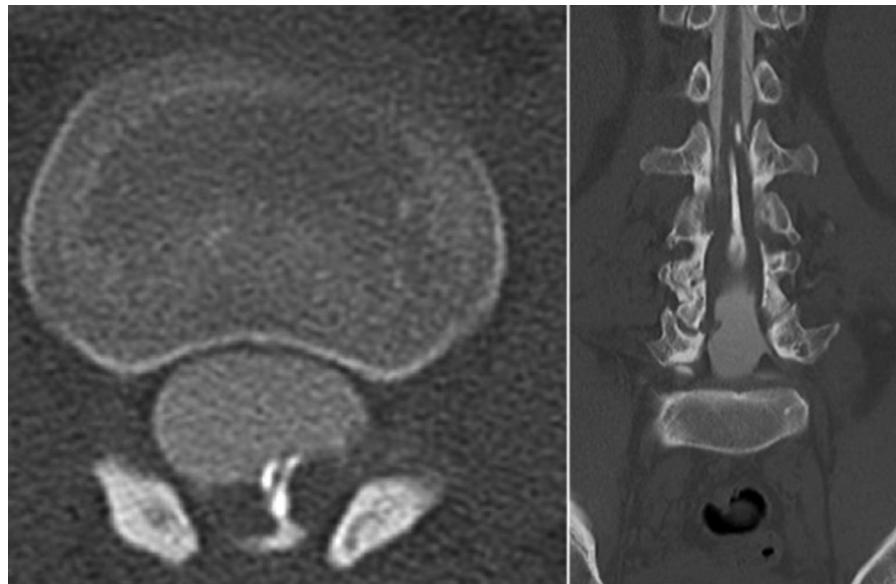


Fig. 2. Axial (Left) and coronal (Right) CT images showing dense contrast filling the space between the hemicords.

Nancy Abu-Bonsrah, BS
C. Rory Goodwin, MD, PhD
Debebe Theodros, BS
Eric W. Sankey, BS
Daniel M. Sciubba, MD
Department of Neurosurgery

The Johns Hopkins University School of Medicine
600 North Wolfe Street, Baltimore, MD 21287, USA

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