Frozen cord

Figure 1 Pre- and immediate postcryoablation

(A) Pretreatment sagittal postgadolinium T1-weighted image demonstrating an enhancing T10 vertebral body lesion (arrow). (B-E) Immediate posttreatment sagittal and axial T2-weighted images, diffusion-weighted image, and apparent diffusion coefficient map demonstrating edema in the cord (arrows, B and C) with restricted diffusion (arrows, D and E) indicating cytotoxic edema.

A 30-year-old man with Ewing sarcoma presented with an enlarging metastatic osseous lesion involving the T10 vertebral body. Percutaneous cryoablation was performed under CT guidance for local tumor control; immediately following, he developed paraplegia. Early and delayed cord imaging show cryoablation-related injury (figures 1 and 2). The procedure involves targeted freezing of tissue to approximately -40°C and is usually safe for lesions involving the anterior vertebral body distant from the cord.^{1,2} Distant thermal effects with a temperature as low as 0°C can occur, however, up to 5 cm from the site of treatment.

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Study funding: No targeted funding reported.

Disclosure: The author reports no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

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Figure 2 Late follow-up postcryoablation

(A-E) Three-month posttreatment sagittal T2 and postgadolinium T1-weighted images and axial T2 and postgadolinium T1-weighted images: T2 hyperintensity and enhancement are seen in the ventral thoracic cord at the level of the ablation (arrows, B-D). Cord appears tethered to the dura ventrally due to scarring (arrow, A).

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Neurology 2016;86;106-107

DOI 10.1212/WNL.0000000000002243

This information is current as of December 28, 2015

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