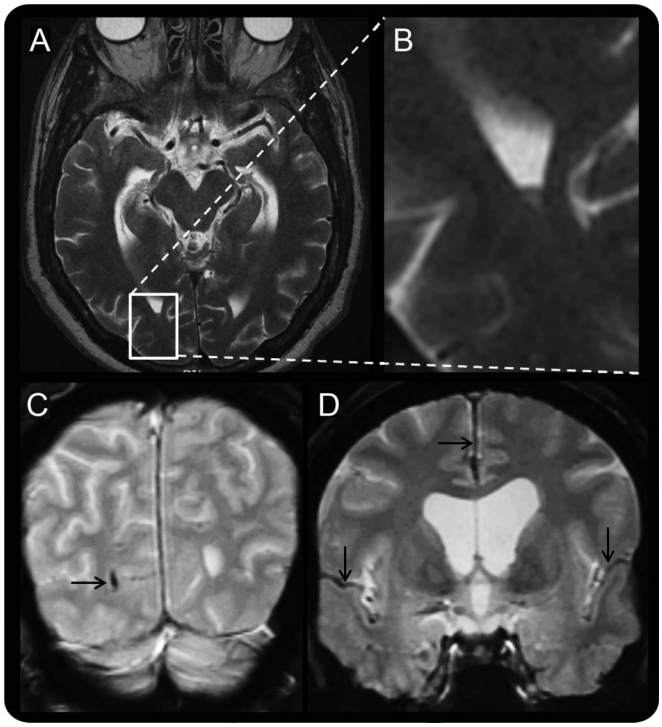
CNS siderosis and orthostatic headache as a delayed complication of spinal surgery

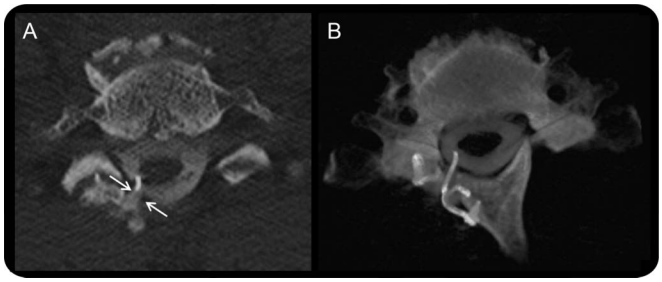
Figure 1 Brain MRI



Trace intraventricular blood in the right occipital horn is seen as a fluid-fluid level on T2 fast spin echo sequence (A, B). T2* gradient echo sequence shows susceptibility artifact related to intraventricular blood (C) in addition to mild superficial siderosis, most prominently noted along the falx and sylvian fissures (D, arrows).

A 61-year-old man presented with orthostatic headaches and asymmetric sensorineural hearing loss (ASNHL) 8 years after cervical laminoplasty. Percussion of his cervical spine elicited Lhermitte sign. Brain MRI demonstrated trace intraventricular blood and mild superficial siderosis (figure 1); digital subtraction angiogram had normal results. CT myelogram revealed fractured hardware puncturing adjacent dura with resultant CSF leak (figure 2).

Figure 2 Cervical CT myelogram



(A) Distal aspect of fractured and medially displaced laminoplasty plate is visible at C7. Its tip pierces the dura and approximates the dorsolateral spinal cord with resultant CSF leak (between arrows), accounting for patient's orthostatic headaches and Lhermitte sign on spine percussion. (B) 3D reconstruction of the dislodged plate.

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ASNHL or ataxia are typical presenting features of CNS siderosis, resulting from chronic cerebral or spinal subarachnoid hemorrhage, with characteristic brain MRI findings.[1,2] CT myelogram in this patient identified the bleeding source and also explained his associated orthostatic headaches and Lhermitte sign.

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Author contributions: M.O.B. and C.A.J. evaluated the patient. A.U. interpreted the brain MRI. J.F.T. performed the CT myelogram. J.F.T. prepared the images and legends. M.O.B. wrote the manuscript. J.F.T., A.U., and C.A.J. finalized the manuscript.

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