



Figure. (A) T1-weighted sagittal image shows hyperintense signal along the left corticospinal tract. This striking appearance is also present on the opposite hemisphere. (B) Axial FLAIR image shows hyperintensity of precentral gyrus bilaterally. (C) Axial FLAIR image shows hyperintense corticospinal tract at the crus cerebri. This series of MR images clearly demonstrated bilateral corticospinal tract involvement in amyotrophic lateral sclerosis.

MRI in ALS: Corticospinal tract hyperintensity

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A 32-year-old woman with no family history presented with 12 months of progressive left upper limb weakness. Examination revealed moderate wasting and pyramidal weakness in all muscle groups in the left upper limb, especially the shoulder girdle and

intrinsic hand muscles. Mild pyramidal weakness was also noted in the left lower limb. No fasciculation was noted. She was hyper-tonic and hyperreflexic in all four limbs. Clonus and upgoing plantar response were elicited bilaterally. Sensory and cranial nerve examinations were unremarkable. Neurophysiology and MRI studies (figure) supported the diagnosis of amyotrophic lateral sclerosis (ALS). Recent neuroimaging studies have demonstrated hyperintense signals on T2-weighted and fluid-attenuated inversion recovery images along the corticospinal tract in some patients with ALS.¹ This is thought to be due to a dying back process.

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