Teaching NeuroImage: Corticospinal tract

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Figure

Axial MRI of the brain with fluid-attenuated inversion recovery sequence revealing symmetric hyperintensities in precentral gyri (A), corona radiata (B), posterior limbs of the internal capsules (C), cerebral peduncles in the midbrain (D), and ventral pons (E) corresponding to the degeneration of the corticospinal tracts

A 60-year-old man presented with progressive weakness for 2 years that began in the right arm and subsequently spread to all limbs. On examination, he had both upper and lower motor neuron signs including spasticity, hyperreflexia, and fasciculations in addition to asymmetric weakness. The sensory examination was normal. He was diagnosed with amyotrophic lateral sclerosis (ALS). MRI showed bilateral symmetric hyperintensities on fluid-attenuated inversion recovery sequence, corresponding to the degeneration of the corticospinal tracts from the level of motor cortex to ventral pons as shown in the fig-

ure. From 22 to 39% of patients with ALS will have this finding on brain MRI.^{1,2}

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