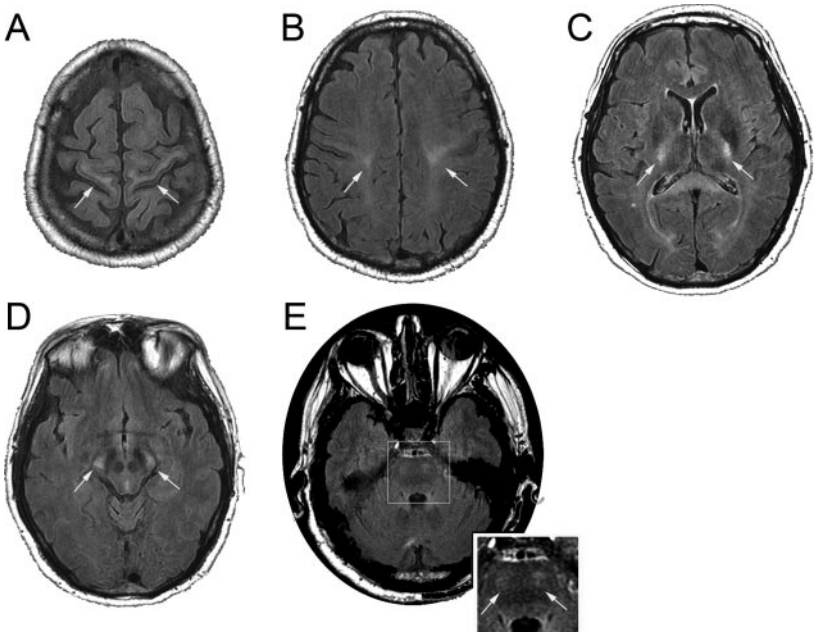
Teaching NeuroImage: Corticospinal tract

Sheng-Han Kuo, MD
Justin Y. Kwan, MD

Address correspondence and reprint requewts to Dr. Sheng-Han Kuo, Neurology Resident, Department of Neurology, Baylor College of Medicine, 6550 Fannin, Suite 1801, Houston, TX 77030
kuo@bcm.tmc.edu

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 figure. From 22 to 39% of patients with ALS will have this finding on brain MRI.[1,2]

REFERENCES

1. Hecht MJ, Fellner F, Fellner C, Hilz MJ, Heuss D, Neundörfer B. MRI-FLAIR images of the head show corticospinal tract alterations in ALS patients more frequently than T2-, T1- and proton-density-weighted images. J Neurol Sci 2001; 186:37–44.
2. Zhang L, Ulug AM, Zimmerman RD, Lin MT, Rubin M, Beal MF. The diagnostic utility of FLAIR imaging in clinically verified amyotrophic lateral sclerosis. J Magn Reson Imaging 2003;17:521–527.

From the Department of Neurology, Baylor College of Medicine, Houston, TX.
Disclosure: The authors report no disclosures.

Teaching Neuro*Image*:Corticospinal tract

Sheng-Han Kuo and Justin Y. Kwan

Neurology 2008;71;e10
DOI 10.1212/01.wnl.0000324484.76509.09