Bright tongue sign: a diagnostic marker for amyotrophic lateral sclerosis

A 53-year-old woman complained about a 2-year-history of progressive tetraparesia with global brisk reflexes, global amyotrophy and fasciculations. As her clinical picture suggested a motor neuron disease, she performed electroneuromyography (ENMG) unveiling anterior horn compromise and brain MRI study with the so-called “bright tongue sign” (Figure), in this context suggestive of amyotrophic lateral sclerosis (ALS). ALS represents the most common form of neurodegenerative motor neuron disease. Although clinical and ENMG findings are highly suspicious, neuroimaging studies commonly present with typical features representing compromise of pyramidal tracts, sometimes with signs of fatty replacement in the chronic denervated target musculature.

Figure. Sagittal T1-weighted brain MRI discloses abnormal diffuse hyperintensity of the tongue musculature (A), correspondent to severe atrophic tongue (B). Normal tongue MRI feature is showed (C).

References