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Diffusion Tensor Imaging and Quantitative Susceptibility Mapping as Diagnostic Tools for Motor Neuron Disorders

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ABSTRACT

Purpose: Diffusion tensor imaging (DTI) and quantitative susceptibility mapping (QSM) have been proposed as methods to aid in the diagnosis of amyotrophic lateral sclerosis (ALS) and primary lateral sclerosis (PLS), both diseases affecting upper motor neurons. We test the performance of DTI and QSM alone and in combination to distinguish patients with diseases affecting upper motor