

Application of the McDonald 2010 criteria for the diagnosis of multiple sclerosis in an Argentinean cohort of patients with clinically isolated syndromes

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Abstract

Background: The International Panel on Diagnosis of Multiple Sclerosis has proposed new magnetic resonance imaging (MRI) criteria for the diagnosis of multiple sclerosis (MS) in patients with clinically isolated syndrome (CIS). We aimed to evaluate these new criteria in a cohort of patients from Buenos Aires, Argentina.

Methods: Patients with CIS, in whom MRI was performed within three months of onset of symptoms, were included between January 2005–June 2010. Poser or McDonald 2005 criteria were used as gold standard diagnostic criteria for MS. MRI was assessed by a blind evaluator identifying recently diagnostic MS criteria. New criteria sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) and accuracy were determined.

Results: Altogether 101 patients were included. Of these, 86 patients converted to MS (McDonald 2005/Poser) during the follow-up. The mean follow-up time was 7.3 ± 3.2 years (range 1.8–11 years). Sensitivity was 84%, specificity 80%, PPV 96%, NPV 46% and accuracy 82%. The sub-analysis applied only to non-European descendants (mestizos, natives and zambos) showed a high level of accuracy for these new diagnostic criteria in this local ethnic/genetic population (sensitivity 77%, specificity 72%, PPV 94%, NPV 38%).

Conclusions: This study assessing McDonald 2010 criteria in a Latin-American population may contribute to its international validation.

Keywords

Multiple sclerosis, diagnostic criteria, clinically isolated syndromes

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