

Effect of neurofeedback training on depression and fatigue in patients with multiple sclerosis.

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Abstract

Depression and fatigue are common symptoms of multiple sclerosis (MS) and are the primary determinants of impaired quality of life in this demyelinating neurological disease. Untreated depression is associated with suicidal ideation, impaired cognitive function and poor adherence to immunomodulatory treatment. For these reasons, systematic screening and management of depressive symptoms and fatigue is recommended for all patients with MS. The objective of this study was to evaluate the effectiveness of neurofeedback in treating depression and fatigue in persons with MS. We conducted a randomized trial with 24 MS patients with primary fatigue and depression. Participants were randomized into two groups: neurofeedback training group (16 sessions of NFB) or treatment as usual. Participants were evaluated at 3 time points (baseline, end of the treatment, and 2-month follow-up) using the Fatigue Severity Scale and Depression subscale of the Hospital Anxiety and Depression Scale as outcome measures. A repeated measures analysis of variance was used to examine differences between the groups. NFB significantly reduced symptoms of depression and fatigue in patients with MS patients, compared to treatment as usual ($p < .05$), and these effects were maintained the 2-month follow-up ($p < .05$).