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Effect of Biotin on Patients with Multiple Sclerosis in a Sample of Egyptian Patients

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Background: Multiple sclerosis (MS) is an autoimmune disease that causes demyelination of the central nervous system. Biotin is a vitamin acting as a coenzyme for carboxylases involved in key steps of energy metabolism and fatty acids synthesis. Biotin has been evaluated in the management of MS. Objective: To evaluate the effect of high dose of biotin on multiple sclerosis (MS) as regard safety, efficacy and improving in outcome in patients with multiple sclerosis

Methods: This pilot study conducted on 30 Egyptian patients (20 female and 10 male) diagnosed with multiple sclerosis according to McDonald criteria for multiple sclerosis 2015.5 patients with primary progressive MS, 20 patients with relapsing remittent MS and 5 patients with secondary progressive MS were included. All of them received oral biotin 150mg/day for 18-24 months. Judgement criteria varied according to clinical presentations and included quantitative and qualitative measures. Patient assessment was performed by expanded disability status scale (EDSS), timed 25-foot walk (T25-FW), and MRI of the brain. Patients were assessed every 3 months.

Results: All study group had improved EDSS, T25-FW, and MRI plaques compared to baseline.

Conclusions: Our data suggest that high doses of biotin may impact disease's progression and improve clinical outcome in MS.