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Effects of Amantadine on Acute Stroke: A Randomized, Double Blind, Placebo-Controlled Trial.

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Stroke is a leading cause of morbidity and second cause of mortality worldwide. Early participation in rehabilitation treatments such as neurostimulant drugs showed to be beneficial. Amantadine usually used as Parkinson disease treatment, is prescribed in patients with traumatic brain injury to improve level of consciousness. This randomized, double blind, placebo-controlled trial was done to show neuroprotective effects of amantadine and evaluate conscious state and functional recovery in acute stroke.

We enrolled 60 patients who were in minimally conscious state after stroke and were receiving inpatients rehabilitations. Patients were randomly assigned to receive amantadine 100 mg twice-daily or placebo for 12 weeks. We used Glasgow Coma Scale (GCS) and Disability Rating Scale (DRS) to evaluate patients 6 and 12 weeks after stroke.

There was an improvement in the GCS scores after 12 weeks treatment of amantadine ($P=0.013$, Mann-Whitney U test). Also, the means of GCS scores changes through 0-6 and 0-12 weeks of treatment accelerated in amantadine group vs. placebo group ($P=0.015$ and $P=0.006$ respectively, Mann-Whitney U test). DRS scores were not significantly different between groups although DRS scores increased in both placebo and amantadine groups in 6 and 12 weeks follow-up ($P=0.701$ and $P=0.585$ respectively, Independent sample t test). We concluded that amantadine accelerates consciousness during active treatment in patients with stroke. We also showed no significant improvement in DRS and functional recover but further research with larger sample size and follow up is recommended

Biography

Mehdi Sheikhi is working as Professor in the Department of Internal Medicine, AJA University of Medical Sciences, Tehran, Iran. His area of expertise is neurology, psychology and neurogenetics. Mehdi Sheikhi has served as an peer-reviewed editor for several reputed journals and also published several research papers in the international journals.