



Trapeutic Effect of Donepezil and Memantine on Vascular Dementia

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ABSTRACT

Background and Aim: Vascular dementia is one of the most common form of dementia. There is no treatment available to cure vascular *dementia* or to alter clinical course. The aim of this study was to evaluate the effects of donepezil, memantine, rivastigmine and galantamine on mean flow velocity (MFV) and Mini-Mental State Examination (MMSE).

Materials and Methods: This double-blind clinical trial was conducted on 44 patients with vascular dementia. Vascular dementia was diagnosed based on the DSM-V criteria. According to the order of entry into the study, the participants were treated with one of the drugs (donepezil (10 mg/d), memantine 10 mg/d), galantamine (8 mg/d) and rivastigmine 6 mg/d . The sampling finished whenever 11 patients in each group completed the three-month trial. The MMSE and color Doppler ultrasound was performed for all participants before and three months after the intervention.

Results: Our findings showed that memantine and donepezil significantly increased MMSE score (P = 0.009 and P = 0.001 respectively). Since there was no significant difference between the groups in the frequency of variables and the mean MMSE scores before the intervention, the administration of memantine and donepezil increased the MMSE scores. The findings also demonstrated that rivastigmine, galantamin and donepezil significantly increased MFV in some arteries.

Conclusion: Memantine and donepazil improve cognitive function in patients with vascular dementia. Rivastigmine, galantamin and donepezil increase MFV in some arteries although this effect seems limited.
