Vascular and mixed dementia: immune state and effectiveness of multimodal treatment

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Abstract

The aim was to study some clinical and immunological characteristics of vascular dementia (VaD) compared with mixed dementia (MD). Vascular dementia was diagnosed in 26.5% since mixed dementia was in 33.2% of all patients firstly admitted to the psychogeriatric unit. Some indices of an innate immunity including leukocyte elastase activity (LE), the functional activity of α1-protein inhibitor (α1-PI), C-reactive protein (CRP) and interleukin-6 (IL-6) concentration were measured in blood plasma of in-patients. Both forms of dementia (VaD, MD) are characterized by the appearance of inflammatory markers (LE, α1-PI, CRP and IL-6) in patients’ blood plasma. The level of these markers was found to depend on the severity of dementia. Increased levels of CRP and IL-6 are probable the biological markers of mild VaD. Mild MD was characterized by the significant increase in activity of α1-PI, but not the level of CRP, IL-6 and activity of LE. The state of moderate MD was determined by the significant increase in activity/level of α1-PI, CRP and IL-6. The significant positive correlation between the level of CRP and IL-6 were found in the groups of patients with moderate dementia MD only. An open study of multimodal long-term treatment with memantine combined with vascular risk factors correction and with course of citicoline (1000 mg N=20 i.v. infusions) was carried out in 20 in-patients. An augmented therapeutical effect was shown on CGI-I assessment in mild and moderate VaD and in mild MD. The innate immune indices are needed to study as markers of anti-dementia treatment’s effectiveness.

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