

ABSTRACT

The relationship between latent toxoplasmosis and the memory processes has not been studied in detail. There is an assumption of a possible link between latent toxoplasmosis and memory, due to the generally weaker cognitive performance and worse prognosis of *Toxoplasma*-positive patients with schizophrenia. The aim of this study was to verify whether the latent toxoplasmosis along with Rh phenotype affects the memory of *Toxoplasma*-infected individuals. Visual-spatial working memory was tested by the Spatial Span test, Meili test and Virtual Four Goals Navigation task. These tests were performed on a group of 307 students of the Faculty of Science, Charles University. The results of these tests demonstrated the negative impact of latent toxoplasmosis on visual-spatial working memory. It was detected that *Toxoplasma*-positive men remember more subjects with aggressive themes, while *Toxoplasma*-positive women remember less subjects with aggressive themes. The findings could be related to the previously observed changes in the concentration of testosterone in infected men and women. The protective effect of Rh positivity was not confirmed, as in many sub-tests the worse memory performance was by Rh positive individuals with latent toxoplasmosis.

Keywords: Latent toxoplasmosis, Rh factor, visual-spatial working memory, Virtual Four Goals Navigation task, Spatial Span test, Meili test