DOI: 10.46991/JISEES.2025.SI1.191

Impact of Confounding Factors on Emotional and Cognitive Status in Patients with Asthenia

Elena V. Mashkovtseva[1,2*], Veronika N. Shishkova[3,4], Yaroslav R. Nartsissov[1,5]

[1] Institute of Cytochemistry and Molecular Pharmacology, Moscow, Russia

[2] Pirogov Russian National Research Medical University, Moscow, Russia

[3] Moscow Regional Research Clinical Institute named after Vladimirsky, Moscow, Russia

[4] Russian State University for the Humanities, Moscow, Russia

[5] Biomedical Research Group, BiDiPharma GmbH, Siek, Germany

ABSTRACT

Psychosocial factors and major epidemiological risks are well-known to be significant contributors to the pathogenesis and progression of multifactorial diseases. Psychoemotional stress is markedly exacerbated under conditions of social and economic instability. Anxiety, irritability, and vital exhaustion may modulate physiological processes via neurohumoral regulation, thereby increasing the susceptibility to the development and progression of cardiovascular diseases, asthenic syndrome, and cognitive decline. The neuropsychological examination facilitates not only comprehensive evaluation of cognitive and emotional status pre- and post-therapy, but the formulation of individualized strategies for stress management and prevention of its adverse consequences. The neuropsychological assessment data of 120 patients with asthenia before and after the administration of metabolic therapy were comprehensively analyzed to build a statistical model. Elevated levels of stress and vital exhaustion demonstrate significant correlation with the gastrointestinal pathologies and smoking more than 10 cigarettes per day. Prolonged completion of cognitive tasks in patients with arterial hypertension and diabetes mellitus may indicate the disturbances in cerebral tissue perfusion. Psychoemotional status improvement and attenuation of asthenic symptoms appeared to depend on both the baseline severity of dysfunction and the presence of comorbidities. The described model supports the design of personalized therapeutic strategies with consideration for individual risk factors.

Keywords: metabolic therapy, asthenia, stress, cognition, neuropsychological tests

References:

1. Shishkova, V.N.; Shishkov, V.A.; Kapustina, L.A.; Mashkovtseva, E.V. Experience of Pyridoxin and Glutamic Acid Use in Effective Correction of the Main Asthenia Manifestations. *Meditsinskiy Sovet* **2023**, *17*, 80–89. DOI:10.21518/ms2023-465
2. Yoon, J. H.; Park, N. H.; Kang, Y. E.; et al. The Demographic Features of Fatigue in the General Population Worldwide: A Systematic Review and Meta-Analysis. *Front. Public Health* **2023**, *11*, 1192121. DOI:10.3389/fpubh.2023.1192121
3. Shishkova, V. N.; Adasheva, T. V. Relevance of Screening for Cognitive and Psychoemotional Disorders in Patients with Metabolic Syndrome and Insulin Resistance. *Consilium Medicum* **2022**, *24*, 252–255.

*Corresponding Author:

Elena V. Mashkovtseva, Institute of Cytochemistry and Molecular Pharmacology. 24/14, 6th Radialn'naya str, Moscow, 115404, Russia.
Email: elenamash@gmail.com