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DISTURBANCE OF NEUROTRANSMITTERS MONOAMINES AND INDICES OF REDUCING-OXIDIZING PROCESSES IN PATIENT WITH THE FIRST EPISODE OF SCHIZOPHRENIA (FES)

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Introduction: Effective treatment of FES patients may lead to achievement of long-term remission, decrease the number of relapses and increase the level of social activity and quality of life.

Aim: To study some pathophysiological mechanisms of FES.

Methods: The group of patients who were investigated clinically and biochemically consists of 26 persons (11 women and 15 men, average age 28.2 ± 9.5 years) with the first psychotic episode (F20.0; F20.3). Some biochemical parameters, representing the monoaminergic systems, and some biophysical parameters, representing reducing-oxidizing processes, were investigated. These parameters in all patients were estimated following the admission and prior to any treatment.

Results: The severity of the disorder on admission to the clinic according to PANSS score was $75,5 \pm 2,2$ (i.e., moderately severe). Patients with FES were characterized by a significant increase of platelet monoamine oxidase activity (by 107%; $p < 0,01$) and decrease of serum semicarbazide-sensitive amine oxidase activity (by 29%; $p < 0,001$) in comparison to the controls. Both reactive capability of SH-group (Cys-34 residue) of serum albumin, the main source of thiols of plasma and interstitial fluid, measured in reaction with thiol-specific reagent - dithyionitrobenzoic acid, and kinetic coefficient were decreased in FES patients (by 24%; $p = 0,02$) in comparison to controls.

Conclusion: These results show that FES patients are characterized by pronounced metabolic disturbances.