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PECULIARITIES OF BIOCHEMICAL CHANGES IN THE FIRST-EPISODE DRUG NAÏVE SCHIZOPHRENIC PATIENTS

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Aim: The aim of the study was to investigate the state of parameters characterizing different sites of metabolism and the degree of endogenous intoxication in drug-naïve first episode schizophrenic patients (FES).

Methods: Platelet monoamine oxidase (MAO) and serum semicarbazide-sensitive amine oxidase (SSAO) activities, serum concentrations of middle-mass endotoxic molecules (MMEM) and malondialdehyde and parameters of serum albumin functional state (Uzbekov et al., 2006) were measured in 16 FES patients and 15 age-matched healthy volunteers.

Results: Severity of disorder prior the treatment was 73.1 ± 12.5 according to PANSS score. FES patients were characterized by significant increase in MAO activity (by 107 %) and MMEM concentration (by 140 %) and significant decrease in SSAO activity (by 29 %) as compared with controls. Degree of endogenous intoxication in 13 patients was assessed as moderate and severe. Changes of all other parameters were insignificant. Regression analysis has shown significant relationship of 3 parameters - MAO ($p < 0,01$), SSAO ($p < 0,01$) and MMEM ($p < 0,02$) with values of PANNS score. Three methods of extraction of factor analysis have revealed that MAO and SSAO are belonged to factor 1 whereas MMEM and albumin functional parameters - to factor 2.

Conclusions: It is supposed that MAO and SSAO are integral components of schizophrenia pathogenetic mechanisms. Comparing our earlier data on chronic schizophrenic patients with these data we suppose that FES patients are on the stage of the formation of the pathological state of metabolism. Study was partially supported by the ISTC grant 3156.