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DYNAMICS OF PSYCHOPATHOLOGICAL SYMPTOMATOLOGY AND CYTOKINE LEVELS IN THE PROCESS OF SCHIZOPHRENIC PATIENTS TREATMENT

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Objective: Investigation of spontaneous, mitogen-induced production and serum concentration of IFN- γ , IL-4 and TNF- α of schizophrenic patients with different dynamic of psychopathological symptomatology during therapy.

Methods: Clinical Global Impression Scale (CGI, subscale CGI-C) was used to estimate dynamic of psychopathological symptomatology during treatment: 32 schizophrenics were divided into two groups:

group 1 (10 patients) - with considerable improvement of psychopathological symptomatology;

2 (22 persons) - with non-considerable improvement or without changes.

Serum concentration, spontaneous, mitogen-induced production of IFN- γ , IL-4, TNF- α by leukocytes of schizophrenics was identified with sets for immune-enzyme analysis in dynamic of treatment

(point 1 - during admission in hospital,

point 2 - by week 6 of treatment).

Results: In point 1, mitogen-induced production of IL-4, serum IFN- γ , spontaneous production and serum TNF- α significantly exceeded values in control. Simultaneously, in these examined we noticed decrease of induced production of IFN- γ and TNF- α . Group 1 showed higher values of induced production of IFN- γ and lower values induced production of TNF- α as compared with group 2.

In point 2, in patients of group 1, we established significant increase of mitogen-induced and spontaneous production of TNF- α , spontaneous production of IFN- γ as compared with conformable values prior to treatment. Increase of induced production of IL-4 has a trend toward lowering serum concentration of TNF- α , what was shown in both groups.

Conclusion: Thus, schizophrenia is accompanied by disturbances of cytokine levels. We identified that favorable clinical dynamic was followed by the positive dynamic of mitogen-induced production of IFN- γ and serum level of TNF- α .