

P03-50 - SERUM FAS AND FAS LIGAND LEVELS IN PATIENTS WITH SCHIZOPHRENIA

V. Djordjevic¹, D. Lazarevic², L. Trajanovic¹, V. Cosic³, T. Ristic³, V. Djordjevic⁴

¹*Clinic for Mental Health Protection*, ²*Clinic for Psychiatry*, ³*Centre for Medical Biochemistry, Clinical Centre Niš*, ⁴*Institute of Biochemistry, Faculty of Medicine, Nis, Serbia*

Objectives: Since apoptosis is considered to play a role in the pathogenesis of schizophrenia the aim of this study was to examine the Fas and Fas ligand (FasL) system in patients with schizophrenia. FasL is transmembrane protein that induces apoptosis by binding to its specific receptor Fas. The Fas-FasL complex is an important effector of cell death in different cell types.

Methods: Serum Fas and FasL levels were determined in 30 patients with schizophrenia (11 females, 19 males), and 30 healthy controls (11 females, 19 males) by the ELISA method.

Results: Serum Fas levels were significantly higher in patients with schizophrenia (4.63 ± 0.96 ng/mL, $p < 0.05$) than in controls (4.12 ± 0.81 ng/mL). A significant increase in FasL levels was also found in schizophrenic patients (0.099 ± 0.029 ng/mL, $p < 0.05$) in comparison with those in healthy controls (0.085 ± 0.023 ng/mL). Schizophrenic males showed significantly higher both Fas (4.97 ± 0.83 ng/mL, $p < 0.05$) and FasL (0.103 ± 0.032 ng/mL, $p < 0.01$) compared to the control males (4.30 ± 0.93 ng/mL; 0.079 ± 0.011 ng/mL, respectively). A significant positive correlation between patient serum FasL and lymphocyte caspase-3 activity was found.

Conclusion: These results clearly show a dysregulated extrinsic apoptotic pathway in patients with schizophrenia.