

P03-202

SERUM LEVELS OF BCL-2 PROTEIN IN PATIENTS WITH SCHIZOPHRENIA

V.V. Djordjević¹, D. Lazarević², V. Ćosić³, P. Vlahović³, S. Tošić², T. Ristić³, V.B. Djordjević⁴

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

In order to identify a pathophysiological mechanism that could explain the progressive elements of schizophrenia and its relationship with neurodevelopment, oxidant stress, glutamate excitotoxicity, neurochemical sensitisation and a dysregulation of apoptosis were considered.

To test apoptotic process in schizophrenia, Bcl-2 protein was determined in sera from 30 patients with schizophrenia and from 30 age and gender matched healthy subjects by an ELISA method. Although mean serum Bcl-2 protein concentration in patients with schizophrenia was lower than in healthy volunteers, there was no any significant difference between patient (0.276 ± 0.07 ng/mL) and control (0.332 ± 0.22 ng/mL) values. No significant difference was found between males and females. Similar Bcl-2 concentrations were obtained in the group showing almost equally positive and negative symptoms, in the group with a relative predomination of positive symptoms and in the group with a relative predomination of negative symptoms. Serum Bcl-2 protein concentration in patients treated with first generation antipsychotics was 0.301 ± 0.075 ng/mL, and it was significantly higher in comparison with the values obtained in patients receiving the second generation antipsychotics (0.233 ± 0.052 ng/mL, $p < 0.05$). A significant correlation was found between serum levels of Bcl-2 and FasL ($r = 0.418$, $p < 0.01$). There was not any significant correlation between serum Bcl-2 concentration and heredity, the first onset of the disease, the number of psychotic episodes and the duration of psychosis. To our knowledge to date, this has been the first demonstration of Bcl-2 concentration in sera of patients with schizophrenia, showing significantly different values between patients treated with typical or atypical antipsychotics.