

S32-04

CLINICAL DIFFERENCES BETWEEN TOXOPLASMA GONDII SEROPOSITIVE AND SERONEGATIVE SCHIZOPHRENIA PATIENTS IN CZECH AND INTERNATIONAL STUDIES

D. Holub<sup>1,2</sup>, L. Bankovská Motlová<sup>1,3</sup>, E. Dragomirecká<sup>1,4</sup>, M. Rodriguez<sup>4</sup>, M. Preiss<sup>1,4</sup>, T. Novák<sup>1,4</sup>, J. Čermák<sup>1,4</sup>, J. Horáček<sup>1,3,4</sup>, J. Libiger<sup>2,5</sup>, J. Flegr<sup>6</sup>

<sup>1</sup>Centre of Neuropsychiatric Studies, Prague, <sup>2</sup>Medical Faculty Charles University, Hradec Králové,

<sup>3</sup>3rd Medical Faculty Charles University, <sup>4</sup>Prague Psychiatric Centre, Prague, <sup>5</sup>Psychiatric Clinic, University Hospital, Hradec Králové, <sup>6</sup>Biology Section, Faculty of Sciences, Charles University, Prague, Czech Republic

Toxoplasma is considered as one of the most promising candidates of infectious agent that might trigger psychotic disorder in predisposed subjects or modulate the course of the disease. A clinical pattern has not been established yet in Toxoplasma infected schizophrenia patients.

Psychopathological, cognitive and treatment response features of Toxoplasma seropositive and seronegative individuals suffering from schizophrenia spectrum disorder has been studied in China, Czech Republic, Ethiopia, Germany, Turkey, United States and other countries to determine whether schizophrenia and Toxoplasma infection co-morbidity modifies clinical presentation and illness course. Prague Psychiatric Centre project consisted of 251 patients with schizophrenia spectrum disorder consecutively admitted to between 2000 and 2010. Toxoplasma-infected patients spent more days in hospital during their last admission compared to Toxoplasma-free patients ( $p=0.003$ ; mean difference 32.9 days). Schizophrenia started approximately one year earlier in Toxoplasma-infected men and about 3 years later in Toxoplasma-infected women than in Toxoplasma-free patients, which corresponds to gender related toxoplasmosis incidence curves in the Czech Republic. All infected patients scored higher in the Positive Subscale of Positive and Negative Symptom Scale (PANSS). The PANSS scores and composite PANSS scores also correlated negatively with the concentration of anti-Toxoplasma antibodies indicating the increase of psychopathology with infection duration. Our findings support the hypothesis that toxoplasmosis may represent a risk factor for schizophrenia spectrum disorders.