

P01-161

COGNITIVE AND AFFECTIVE ENDOPHENOTYPES RELATED TO MAJOR DEPRESSION ARE ASSOCIATED WITH P2RX7

A. Sarosi¹, A. Szekely², G. Balogh¹, X. Gonda^{1,3}, Z. Halmai², **Z. Rihmer**¹, G. Faludi¹, M. Sasvari-Szekely⁴

¹*Department of Clinical and Theoretical Mental Health, Semmelweis University,* ²*Institute of Psychology, Eotvos Lorand University,* ³*Department of Pharmacology and Pharmacotherapy,* ⁴*Institute of Medical Chemistry, Molecular Biology and Pathobiochemistry, Semmelweis University, Budapest, Hungary*

Background: The P2RX7 gene encoding for purinergic receptor P2X has earlier been associated with a susceptibility to anxiety and affective disorders. The aim of our present study was to investigate the association of this polymorphism with different aspects and symptom clusters of major depression.

Method: 192 inpatients diagnosed with DSM-IV major depression and bipolar I and bipolar II depression aged 21-69 years (mean=48.2±11.05) participated in our study. All participants were evaluated using the Montgomery-Asberg Depression Rating Scale (MADRS). All patients were genotyped for the P2RX7 Gln460Arg SNP (rs2230912) using PCR. Association between genotype and MADRS scores was analysed with ANOVA controlling for age and gender.

Results: rs2230912 genotype showed a significant association with depression indicated by the total MADRS score. We also found a significant genotype effect in case of the Affective and Cognitive clusters, but not on the Somatic and Psychomotor clusters of MADRS.

Discussion: We managed to confirm earlier results concerning the association of the P2RX7 rs2230912 with major depressive disorder and bipolar depression. Furthermore, we found that this association is carried by the affective and cognitive symptoms associated with depression. Our results bring us closer to decomposing depression to endophenotypes more suitable for research and also for understanding the nature of affective disorders.

This work was supported by EU-Hungarian fund, GVOP AKF 311 2004 050324/3.0, the Hungarian National fund, OTKA T048576 and Janos Bolyai Research Fellowship of the Hungarian Academy of Science.