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GENETICAL REALTIONS OF SOCIAL LONELINESS IN GERIATRIC PATIENTS

H. Kuzelova¹, R. Ptacek¹, M. Macek Jr.², I. Zukov¹, I. Eliasova³

¹Department of Psychiatry, 1st Faculty of Medicine, Charles University, ²Department of Biology and Medical Genetic, 2nd Faculty of Medicine, Charles University, ³Faculty of Science, Charles University, Prague, Czech Republic

Loneliness affects both psychical and physical health and among geriatric patients can be serious. Social loneliness, anxiety-related personality traits, risk of developing depression, alcoholism or suicidal behavior could be associated with a functional variant in the serotonin transporter. Serotonin transporter gene length polymorphism (5-HTTLPR) is associated with changes of serotonin transporter activity and is one of the major factors which contribute to the etiology of many psychiatric disorders. The aim of the study was to found possible differences in distribution of variants in two groups of geriatric patients (average age 80 years).

Group of 300 probands were examined for 5-HTTLPR variants. Blood samples were randomly collected from 150 elderly males and 150 elderly females. The elderly individuals were not related and lived in the same geographic region as the control newborns and the young adults. Two groups were defined - ambulatory (apparently healthy, 65 males and 70 females) and non-ambulatory (have no people who could take care about them, having chronic diseases and depend on geriatric care, 85 males and 80 females) people. Bialelic and trialelic dividing of 5-HTTLPR was considered. Length polymorphism was analyzed (L or S variant) and single nucleotide polymorphism was detected (L_A or L_G variant).

A significant difference was found in allele distribution of 5-HTTLPR in two groups of patients. Ambulatory group of patients had higher occurrence of L allele and also L_A allele. The results of the study suggest that social loneliness may have some personality predictors that may have its genetical correlates.