

P02-220

ASSOCIATION BETWEEN 5-HTTLPR AND NEUROTICISM IN BORDERLINE PERSONALITY DISORDER

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Neuroticism is characterized by emotional instability and the tendency to experience negative emotions such as anger, anxiety and depressed mood. Subjects with borderline personality disorder (BPD) present this personality dimension as a temperamental core trait. There has been proposed that neuroticism can appropriately describe the most important characteristics of BPD. The polymorphism in the promoter region of the serotonin transporter gene (5-HTTLPR) has been implicated in depression, anxiety and suicide. It is estimated that 5-HTTLPR polymorphism account to 7 to 9% of inherited variance of neuroticism in personality. The aim of this study is to evaluate the association between neuroticism and 5-HTTLPR polymorphism in BPD. We evaluate personality with NEO PI R inventory in 104 BPD subjects (76 female/28 male) that did not meet criteria for axis I diagnoses and other personality disorders. The genetic analysis of 5-HTTLPR were performed determining the presence of long and short alleles, subjects were grouped in long/long (LL) and S-carriers (LS+SS). Statistical analysis were tested with parametric and correlation method with Stata10. We found significant difference in neuroticism between the genotype groups ( $F=8.57$ ,  $p=0.0004$ ) and lower levels of neuroticism in LL than S-carriers. Female have higher neuroticism than male. 5-HTTLPR polymorphism explains 18.02% of inherited variance in neuroticism. The S-carriers had 11.9 times higher risk of presenting elevated neuroticism compared with LL. We conclude that there are relation between 5-HTTLPR polymorphism and neuroticism in BPD. These results should contribute to the genetic study of BPD.