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## HOPELESSNESS AND SEROTONIN RELATED GENES IN DEPRESSED SUICIDE ATTEMPTERS

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**Introduction:** One million people worldwide commit suicide each year; the number of attempters is 20 times larger. The diathesis to suicidal behavior is inherited independently from mental disorders and is most often associated with depression. The importance of serotonergic genes in the genesis of suicidal behavior and depression is assumed. The link between depression and suicidal behavior is hopelessness.

**Objectives:** Analyzing the link of certain serotonergic alleles and genotypes with suicidal behavior and depression, as well as with hopelessness.

**Aims:** To analyze the association of chosen serotonergic alleles and genotypes (5HTT LPR, LPR SNP, VNTR2; THP1 A218C, 5HTR1A C1019G; 5HTR2A T102C, C1354 T) with suicidal behavior, depression and hopelessness.

**Methods:** The study included 30 depressed suicide attempters, 30 depressed patients without attempt and 30 healthy controls. Polymerase Chain Reaction method was used to analyze serotonergic gene polymorphisms. Participants were tested with Beck Depression Inventory, Suicidal Intent Scale, Becks Hopelessness Scale.

**Results:** Two analyzed polymorphisms are associated with depression, but not with suicidal behavior (5HTT intron 2 allele 10 and A218 of the TPH1 gene). Hopelessness is more prominent in depressed suicide attempters.

**Conclusions:** The results support the role of two serotonergic genes in the genesis of depression. Hopelessness is an important predictor of suicidal behavior. Further investigation of the role of serotonergic genes in various subtypes of suicidal behavior is suggested.