

P-710 - THE IMPACT OF BDNF GENE POLYMORPHISMS ON SUICIDALITY IN TREATMENT RESISTANT MAJOR DEPRESSIVE DISORDER - A EUROPEAN MULTICENTER STUDY

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Many association studies have reported associations between the brain-derived neurotrophic factor (BDNF) gene and psychiatric disorders including major depression (MDD). The BDNF gene has further been associated with suicidal behaviour, as well as with treatment response, although with conflicting results. In the present study, we further elucidate the impact of BDNF in MDD patients with suicide risk and/or a personal history of suicide attempts.

Two hundred fifty MDD patients were collected in the context of a European multicentre resistant depression study and treated with antidepressants at adequate doses for at least 4 weeks. Suicidality was assessed using Mini International Neuropsychiatric Interview (MINI) and Hamilton Rating Scale for Depression (HAM-D). Treatment response was defined as HAM-D \leq 17 and remission as HAM-D \leq 7 after 4 weeks of treatment with antidepressants at adequate dose. Genotyping was performed for eight SNPs within the BDNF gene.

With regard to suicide risk and personal history of suicide attempts, neither single marker nor haplotypic association was found with any SNP after multiple testing correction. However, in gender-specific analyses, we found haplotypic association with suicide risk in males, but not in females (rs925946-rs10501087-rs6265, rs10501087-rs6265-rs122733). The only single-marker association with suicide risk in males (rs908867) did not resist multiple testing correction. No significant associations were found in gender-specific analyses with regard to a personal history of suicide attempts.

In conclusion, we found two BDNF haplotypes significantly associated with suicide risk in male MDD patients. However, replication in larger well-defined cohorts is required to dissect this further.