P-1239 - STUDY OF ASSOCIATION OF THE HLA-DRB1*13 VARIANTS WITH SCHIZOPHRENIA IN A BRITISH POPULATION

L.L.Halley, M.K.Doherty, I.L.Megson, J.Wei
Department of Diabetes and Cardiovascular Science, University of Highlands and Islands, Inverness, UK

Genome-wide association study (GWAS) suggested that the genes coding for human leukocyte antigens (HLA) were associated with schizophrenia, of which the DRB1*0301, DQA1*0501 and DQB1*0201 variants were strongly associated with a low risk of the illness although the disease-causing variant remains unknown. Haplotype analysis suggested that the haplotypes contraining a HLA-DRB1*13 variant were excessively transmitted by parents to their offspring with schizophrenia in a Chinese population. Accordingly, this study was designed to genotype three HLA-DRB1*13 variants using six HLA-tagging SNPs in a British population to confirm which one of these 3 variants could contribute to the etiology of schizophrenia. Because of the failure of genotyping rs6905141, the DRB1*1302 association was not analysed. While the DRB1*1301 and DRB1*1303 variants were not associated with the disease, the minor allele of rs424232 was used to construct the haplotype tagging to the DRB1*1303 variant showed a strong association with a low risk of schizophrenia (p=0.002), suggesting that the major allele of rs424232 may be in linkage disequilibrium with a disease-underlying vatriant. In conclusion, the HLA-DRB1*13 variants are unlikely to be involved in the development of schizophrenia but there may be a variant nearby which is involved.

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