Human leukocyte antigen alleles in patients with bipolardisorder in Turkey

Keywords: Genetics; HLA; Bipolar disorder

Significant ethnic differences may be observed in terms of biological markers in different psychiatric illnesses. The HLA system, which is a genetic marker in mood disorders, is such a case. Related research suggests that the genes located on the HLA region of the sixth chromosome may be one of the various factors that contribute to the etiology of mood disorders. It has been reported that there is a significant increase in HLA B16, HLA A29, and B21, HLA-B7 frequencies in patients with bipolar disorders [1,4,5]. However, others did not observe a relationship between HLA haplotypes and mood disorder [3,6]. We investigated the relationship between bipolar mood disorder and HLA antigens by studying a rather large and ethnically homogenous group.

Fifty (24 women and 26 men) patients diagnosed as bipolar mood disorder type I according to DSM-IV criteria were included in the study. The average numbers of manic episodes and depression episodes were 4.2 (SD = 1.4) and 2.1 (SD = 1.1), respectively. Furthermore, a control group of 100 people having no previous or present mental illnesses under examination as donors for kidney transplantation was formed. Written informed consent was obtained from all the subjects. There was not any difference between the two groups in terms of sex and age.

The blood samples were analysed according to the microlymphocitotoxicity method [2]. The loci examined were HLA A (A1-3, A11, A23-26, A28-34, A43, A66); B (B7, B8, B13, B14, B18, B27, B35, B37-42, B44-47, B49-59, B62, B63, B67, B70, B73); C (Cw1, Cw3-6); DR (DR1, DR15-18, DR4, DR11-14, DR7-10, DR51-53, DQ1, DQ2, DQ4, DQ7). HLA DQ8 and DQ9 antigens could not be examined serologically. All the patients and controls were Caucasian and of Turkish origin. In intergroup comparison, the HLA-B7 ($\chi^2 = 3.64$, df = 1, $p = 0.05$), HLA-DR 11 ($\chi^2 = 4.83$, df = 1, $p = 0.04$) and HLA-DQ7 ($\chi^2 = 5.39$, df = 1, $p = 0.03$) antigens were found to be more frequent in the bipolar patient group. However, these results were no longer significant after correcting for the number of alleles. Our findings suggest that HLA alleles may not confer susceptibility to bipolar disorder in the Turkish population.

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Treating psychosis in Parkinson's disease with atypical antipsychotics

Sir,

Winjen et al. [5] in their article discuss the use of quetiapine in elderly patients with parkinsonism and psychosis. However, the possible etiology of psychosis in both their cases is not certain. For instance, in their first case, it is not clear whether the patient developed hallucinations as a part of dementia or whether it was induced by antiparkinsonian drugs. The same dilemma occurs in the second case where we are not sure whether the patient's psychosis is at its baseline due to schizophrenia or has been worsened by any antiparkinsonian drugs. This assumes importance because the approach to managing psychosis in Parkinson's patients with dementia and/or schizophrenia would differ from that induced by dopaminergic drugs used to treat Parkinson's disease (PD). In the latter scenario, the first step would be to decrease or eliminate one or more antiparkinsonian agents. If this does not ameliorate the psychosis, addition of an atypical antipsychotic agent is considered [4]. From the authors' description of the cases, it cannot be discerned whether there was any reduction in the doses of the antiparkinsonian drugs. When

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patients with PD have insight into the hallucinations, and if they are infrequent and not bothersome, then non-pharmacological means of treatment, including education, reassurance, encouraging good sleep habits, avoiding excessive patterned furniture, and reducing sensory deprivation and sensory overload may be used [3,4]. However, antipsychotics like quetiapine may be needed for patients having behavioral and other psychotic symptoms in addition to hallucinations as happened in the cases reported by the authors. Like clozapine, quetiapine may have low propensity to cause extrapyramidal symptoms, but it does not afford additional benefit of an anti-tremor effect in PD as does clozapine [2]. Use of rating scales targeting specifically the motor symptoms in PD like the motor examination section of the Unified Parkinson's Disease Rating Scale (UPDRS) may provide more meaningful information regarding the differential effects of atypical antipsychotics on tremor, rigidity and bradykinesia of PD [1].

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