

Immunological variables in acute mania of bipolar disorder

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摘要

Abstract

Macrophages, lymphocytes and their products, may be involved in the pathophysiology of psychiatric disorders. The cell-mediated immune activation response of manic patients during pre-medication and medication stages remains unclear. The purpose of this case-control study was to investigate the plasma levels of immunologic variables, including interleukin (IL)-1 receptor antagonist (IL-1RA), soluble CD 4 (sCD4) and sCD8, and TH1 (interferon [IFN]- γ and IL-2) and TH2 (IL-4 and IL-10) cytokines in patients with pre-medicated, medicated bipolar mania. The study subjects, aged 16 – 44 years, were physically healthy patients with Young Mania Rating Scale (YMRS) scores ≥ 26 , and normal controls, aged 19 – 40 years, were matched for sex. The immune variables were measured in acute mania and in consequent remission (YMRS scores ≤ 12) among bipolar patients. The plasma levels of IL-1RA, sCD4, and sCD8 were found significantly increased in pre-medicated acute manic patients as compared to normal controls. But only IL-1RA and sCD8 were found different in remitted bipolar patients as compared to normal controls. For TH1 cytokines, culture supernatant level of IFN- γ was found significantly lower in manic patients of both acute and remission stages as compared to normal controls. No significant difference was found in IL-2 level in pre-medicated acute manic patients compared to controls. For TH2 cytokines, no significant differences in IL-4 and IL-10 levels were observed. We showed that cell-mediated immune response was activated in patients with bipolar disorder during the pre-medication, medication, and the remission stages. Our study findings suggest that the immune-modulation in patients with bipolar disorder may be abnormal