

ABSTRACT

Background: The role of inflammation has received increasing attention as a potential pathophysiological mechanism in bipolar disorder (BD).

Objective: To compare the level of soluble tumor necrosis factor receptor 1 (sTNFR1) in manic and euthymic states of BD to healthy controls and investigate the relation between its level and the severity of BD.

Method: Serum levels of sTNFR1 were measured with enzyme linked immunosorbent assay techniques in 88 patients with BD-I (44 patients in manic episode and 44 patients in full remission) and 88 healthy controls. The severity of the manic symptoms was assessed using Young Mania Rating Scale (YMRS). Patients with BD-I in full remission were further subjected to Hamilton Depression Rating Scale. Serum sTNFR1 concentrations were measured by enzyme-linked immunoassay.

Results: The level of sTNFR1 was highest in patients with BD-I most recent episode manic. Patients with BD-I most recent episode manic with psychotic features had higher levels of sTNFR1 than those without psychotic features. sTNFR1 level correlated with YMRS scores.

Conclusion: High level of sTNFR1 may be considered as state marker in manic episodes in patients with BD-I. The more severe the disease, the higher the level of sTNFR1.

Key words: Bipolar disorder, Manic, Inflammation, Tumor necrosis factor