

RELATIONSHIP BETWEEN SYSTEMIC INFLAMMATORY MARKERS AND LITHIUM RESPONSE IN BIPOLAR 1 DISORDER

Olca Şenay, Bahri İnce

Department of Psychiatry, Bakirkoy Prof Mazhar Osman Training and Research Hospital for Psychiatry, Neurology, and Neurosurgery, Istanbul, Türkiye

BACKGROUND AND AIM: Inflammatory processes play a role in the pathogenesis of bipolar disorder. Our study aimed to investigate the relationship between systemic inflammatory markers and lithium response in individuals with bipolar 1 disorder in remission.

METHODS: A total of 90 individuals who were being followed up at Prof. Dr. Timuçin Oral Mood Center, Bakirkoy Prof Mazhar Osman Training and Research Hospital for Psychiatry, Neurology, and Neurosurgery, were diagnosed with bipolar 1 disorder according to DSM-5 diagnostic criteria, were taking lithium medication, and were in remission were included in the study and the Sociodemographic and Clinical Data Form, Hamilton Depression Rating Scale (HDRS), Young Mania Rating Scale (YMRS), ALDA Lithium Response Scale (ALDA) were applied. White blood cell count, neutrophil-lymphocyte ratio (NLR), monocyte-lymphocyte ratio (MLR), platelet-lymphocyte ratio (PLR) values were measured. Bakırköy Dr. Sadi Konuk Training and Research Hospital Clinical Research Ethics Committee Decision No: 2023-09-18.

RESULTS: MLR value of poor lithium responders (n: 59, mean \pm sd: $0,22 \pm 0,058$) was higher than good lithium responders (n: 31, mean \pm sd: $0,18 \pm 0,059$) (t:3,10, df:88, p:0,003). A significant negative correlation was found between ALDA score and MLR value in the whole sample (r:-0,26, p:0,012). A positive correlation was found between the total number of past episodes and the number of past hypomanic episodes and MLR values (r:0,23, p:0,028; r:0,27, p:0,009).

CONCLUSIONS: In bipolar 1 disorder in remission, good response to lithium was found associated with low MLR values, and MLR values were also associated with the number of total and hypomanic episodes. This study shows that the effect of lithium on inflammatory system may play a role in longitudinal lithium response.

Keywords: Inflammation, lithium, mood disorders, mood stabilizers