

## COMPARISON OF INFLAMMATORY MARKERS IN PATIENTS AGED 65 AND OLDER WITH BIPOLAR DISORDER AND SCHIZOPHRENIA

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**BACKGROUND AND AIM:** This study aims to compare the levels of neutrophil-to-lymphocyte ratio (NLR), monocyte-to-lymphocyte ratio (MLR), platelet-to-lymphocyte ratio (PLR), systemic immune-inflammatory index (SII), and systemic inflammation response index (SIRI) in patients aged 65 and older with bipolar disorder and schizophrenia. To date, no studies have examined these biomarkers in this specific geriatric patient population. This research seeks to contribute to the literature by providing a better understanding of the role of inflammation in these psychiatric disorders.

**METHODS:** This retrospective study included 166 patients (bipolar disorder: 87, schizophrenia: 79) aged 65 and older who presented to the Ankara University Geriatric Psychiatry Clinic between 01.01.2018-31.12.2024. All patients were diagnosed according to DSM-5 criteria and were in remission. NLR, MLR, PLR, SII, and SIRI values were calculated from routine hemogram results. Normality was assessed using the Kolmogorov-Smirnov test, group comparisons were performed using the Mann-Whitney U test, and Spearman's test was used for correlation analyses. Ethical approval

was obtained from the Ankara University Medical Faculty Ethics Committee (Date: 29.01.2025, No: İ01-40-25).

**RESULTS:** The schizophrenia group had significantly higher NLR ( $p=0.044$ ) and PLR ( $p=0.002$ ) values compared to the bipolar disorder group. Additionally, in bipolar disorder patients, a weak correlation was found between the number of depressive episodes in the past five years and PLR values ( $r=0.346$ ;  $p=0.016$ ), as well as between the number of manic episodes in the past five years and SIRI values ( $r=0.368$ ;  $p=0.01$ ).

**CONCLUSIONS:** These findings suggest that inflammation plays a significant role in both schizophrenia and bipolar disorder in elderly patients, with a more pronounced effect in schizophrenia. The potential clinical utility of inflammatory biomarkers should be evaluated, and further studies are needed to confirm their prognostic value.

**Keywords:** Bipolar disorder, geriatric psychiatry, Neutrophil-to-Lymphocyte Ratio (NLR), Platelet-to-Lymphocyte Ratio (PLR), Schizophrenia, Systemic Inflammation Response Index (SIRI).