

# The Role of Complete Blood Count Derived Inflammatory Markers in Gestational Trophoblastic Diseases

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## Abstract

**Background:** Gestational trophoblastic disease (GTD) originates from the placenta, which can show local invasion and metastasis.

**Aims:** To investigate the value of the parameters of the complete blood count in our GTD patients and their usage as an inflammatory marker.

**Study Design:** Between January 1, 2016 and December 31, 2019, the records of patients who were followed up with the diagnosis of Gestational Trophoblastic Disease and underwent curettages at the Okmeydani Training and Research Hospital Obstetrics and Gynecology Department, were analyzed retrospectively.

**Methods:** A total of 52 cases were included, including 27 partial and 25 complete mole cases. (Group 1). 62 pregnant women under 12 weeks of

age (Group2) and 66 non-pregnant gynecology patients (Group3) were determined as the control group. All values in the complete blood count and Neutrophil / Lymphocyte Ratio (NLR), Platelet / Lymphocyte Ratio (PLR) values were recorded.

**Results:** Mean Corpuscular Hemoglobin (MCH) and Mean Corpuscular Hemoglobin Concentration (MCHC) values were statistically different between the 3 groups (p.0.02 and p <0.001 respectively). RDW-CV values were statistically lower in the group 2 compared to the group 3 (p: 0.039). When RDW-SD values were compared, both group 1 and group 2 were found statistically significantly lower than the group 3 (p.0.019 and p: 0.028 respectively). There was a significant difference between the 3 groups in

NLR values. ( $P = 0.006$ ).

**Conclusions:** The neutrophil / lymphocyte Ratio can be evaluated as an important parameter in gestational trophoblastic patients. However, multicentered and prospective studies with a large number of patients are needed to be conducted for the routine use of these parameters.

**Keywords:** Blood count parameters ,Gestational trophoblastic disease, Neutrophil / Lymphocyte Ratio (NLR), Platelet / Lymphocyte Ratio (PLR)