

Comparison of the Effects of Second Generation Antihistamines and Omalizumab Treatment on Neutrophil / Lymphocyte Ratio, Platelet / Lymphocyte Ratio and Mean Platelet Volume in Patients with Chronic Spontaneous Urticaria with Each Other and with the Control Group

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Abstract

ABSTRACT Objective: Studies have shown that neutrophil / lymphocyte ratio (NLR), platelet / lymphocyte ratio (PLR) and mean platelet volume (MPV) can be used in CSU to evaluate inflammation marker and response to treatment. In our study, we aimed to compare the NLR, PLR and MPV values in the control group and pre-treatment patient groups, and to investigate the changes with antihistamine treatment and omalizumab treatment in the CSU patient group and control group. Materials and Methods: 146 patients who applied to Manisa Celal Bayar University Dermatology and Venereal Diseases outpatient clinic, with a diagnosis of chronic spontaneous urticaria, using antihistamine or omalizumab were included in the study. Results: The neutrophil and NLR values of the antihistamine and omalizumab treatment group with CSU diagnosis were found to be significantly higher than the pre-treatment control group, but there was no significant difference between each other. Platelet count was found higher and MPV value was found lower in omalizumab group compare to control group. In the omalizumab group, a significant decrease in neutrophil count and platelet count was measured at 3rd months. Conclusion: Neutrophil count, platelet count, NLR values were higher and MPV values were found to be low compared to the control group, these values can be used to measure disease activity. After the treatment, a significant decrease in neutrophil count and platelet count was detected in the omalizumab group. In addition to its anti-IgE effect, omalizumab can show its anti-inflammatory effect by reducing the neutrophil count and platelet count to be within the normal range.

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