

ELEVATED NEUTROPHIL/ LYMPHOCYTE RATIO IN PATIENTS RECEIVING ANY REPLACEMENT THERAPY WITH EUTHYROID HASHIMOTO

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Introduction and objective:

Neutrophil lymphocyte rate (NLO), which is obtained from peripheral blood and used as mathematical rates of lymphocyte numbers, is accepted as available and practical indicator of systemic inflammation existence. Hashimoto's thyroiditis (HT) is the most common human autoimmune disease. HT is characterized by infiltration of the thyroid gland by autoactive T and B cell death and production of anti-thyroid peroxidase and anti-thyroglobulin antibodies.

Antithyroid peroxidase antibody (TPOAb) and antithyroglobulin antibody (TgAb) are two important thyroid autoantibodies that are commonly found in patients with autoimmune thyroid diseases. Several studies have suggested that TPOAb can induce antibody-dependent cell-mediated cytotoxicity, and that TPOAb titers correlate with the severity of lymphocytic infiltration, regardless of the presence or absence of hypothyroidism. However, the function of TgAb remains uncertain.

We aim to evaluate NLO in patients with Hashimoto's thyroiditis.

Material and Methods:

59 patients who have been diagnosed as euthyroid HT and receive any treatment, 53 people who have no in point of age, BMI (body mass index) among them, totally 112 people have been incorporated to the study.

The mean age of patients has been counted as 33.8 ± 12.8 year and the mean age of control group has been counted as 30.1 ± 12.4 year (p=0.1). Patients neutrophil and lymphocyte values have been evaluated by studying

Results:

As a result of this study; euthyroid HT group NLO has been founded as 4.0 ± 0.7 and healthy group NLO has been founded as 2.0 ± 0.1 (p=0.01).

While statistically significant differences were not determined between healthy group and patient group in terms of white blood cell count (7.9 ± 0.3 x10³ and 7.4 ± 0.2 x10³, p=0.1), neutrophil (5.5 ± 0.3 x10³ and 5.4 ± 1.1 x10³, p=0.9). However lymphocyte values were different from control group (2.04 ± 0.1 x10³ and 3.1 ± 0.5 x10³, p=0.05).

Positive correlations were determined among with NLO and CRP (r=0.6, p<.0001), thyroid peroxidase immune body level (r=0.3, p<0.001), anti-thyroglobulin immune body level (r=0.3, p=0.006) and white blood cell count (r=0.4, p<0.001).

Discussion:

Our study demonstrated that NLO values were statistically significant increase in euthyroid hashimoto thyroiditis in comparison with healthy control group and it was seen that it correlated with autoantibody levels. In these results, we think that systemic inflammatory process is important in Hashimoto thyroiditis etiology.