NEUTROPHILS-TO-LYMPHOCYTE AND PLATELET-TO-LYMPHOCYTE RATIO AND SYSTEMIC LUPUS ERYTHEMATOSUS ACTIVITY: A CROSS-SECTIONAL STUDY IN BRAZILIAN PATIENTS

Jady Elen de Pontes^{1,*}, Thiago Alberto Fernandes Gomes dos Santos¹, Thelma Larocca Skare¹

1.Hospital Universitário Evangélico Mackenzie, Curitiba (PR), Brazil.

*Corresponding author: drajadypontes@gmail.com

BACKGROUND

To identify disease activity in systemic lupus erythematosus (SLE) is important to choose the correct treatment. Neutrophil/lymphocyte (N/L) and platelet/lymphocyte (P/L) ratio have been considered to reflect inflammatory status in several situations. The aim is to evaluate the association of N/L and P/L with SLE disease activity.

METHODS

Cross-sectional study of 189 SLE patients for disease activity for SLEDAI-2K, erythrocyte sedimentation rate (ESR), C-reactive protein (CRP) and hemogram with N/L and P/L ratio.

RESULTS

The N/L ratio demonstrated correlation with SLEDAI ($\rho = 0.24$; $p = 0.0009$) ESR ($\rho = 0.17$; $p = 0.02$) and CRP ($\rho = 0.23$; $p = 0.004$); P/L correlated with SLEDAI ($\rho = 0.21$; $p = 0.003$), CRP ($\rho = 0.26$; $p = 0.001$), ESR ($\rho = 0.23$; $p = 0.003$) and levels of anti-dsDNA ($\rho = 0.29$; $p = 0.02$) and had a negative correlation with hemoglobin ($\rho = -0.27$; $p = 0.0001$). A cut-off of 2.28 in N/L ratio had sensitivity of 68.6% and specificity of 68.2% for active disease; a cutoff of 124.1 in P/L ratio had sensitivity of 82.9 and specificity of 41.1% for active SLE.

CONCLUSION

The N/L and P/L ratios are useful in the evaluation of SLE disease activity.

KEYWORDS

Systemic lupus erythematosus, Evidence of inflammatory activity, Disease activity.