MONOCYTE TO LYMPHOCYTE RATIO AND PLATELET TO LYMPHOCYTE RATIO AS A PREDICTOR OF DISEASE ACTIVITY IN TAKAYASU'S ARTERITIS

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BACKGROUND

Takayasu's arteritis (TAK) is a systemic vasculitis involving large vessels. Identifying disease activity through laboratory tests remains a major challenge in clinical practice. Molecular markers such as erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), Interleukin-6 (IL-6) and Interleukin-1 (IL-1) correlate with disease flare but are not specific. The Monocyte to Lymphocyte ratio (MLR) and the Platelet to Lymphocyte ratio (PLR) appear as attractive and promising inflammatory marker in rheumatic diseases. On the other hand, there are few evidences in the literature demonstrating that the MLR and PLR as a predictor of disease activity in TAK. In this retrospective study, it was aimed to clarify such associations.

MATERIALS AND METHODS

Twenty eight TAK patients with stable disease during the last 6 months were included in a cross-sectional study performed at the Outpatient Clinic of a Tertiary Hospital. The Spearman's T test was used to analyse the correlation between MLR and PLR with arteriographic classification, corticosteroid dose, disease onset time, cytokines levels (IL-1, IL-6 and TNF) and acute phase reactants.

RESULTS

No differences were found regarding MLR and PLR with disease activity in TAK. It was analysed the MLR with each one of the cytokines proposed and the PLR eather and there weren't found any differences regarding them. It was showed a negative correlation between disease onset time and platelet to lymphocyte ratio with correlation coefficient of -0.407 and P=0.032.

CONCLUSION

This study showed no correlation between disease activity and MLR and PLR, in addition to a non-statistically significant correlation between disease time and PLR. This finding underscores the difficulty in assessing the disease activity in TAK and the importance of new studies to find biomarkers that are able to follow-up patients.