

# **Biomarkers may ID rheumatoid arthritis patients with and without active disease**

October 20 2022

---



Neutrophil-to-lymphocyte ratio (NLR) and platelet-to-lymphocyte ratio

(PLR) values may differentiate between rheumatoid arthritis (RA) patients with and without active disease, according to a systematic review published online Sept. 24 in the *European Journal of Clinical Investigation*.

Angelo Zinellu, Ph.D., from the University of Sassari in Italy, and Arduino A. Mangoni, Ph.D., from Flinders University in Australia, conducted a systematic review of studies comparing NLR and PLR values between RA patients with and without active disease. Data were included from 18 studies with 2,122 RA patients with active disease and 1,071 RA patients with nonactive disease.

The researchers found that active disease was associated with significantly higher NLR and PLR values (standard mean differences [SMD], 0.37 and 0.48, respectively). In a sensitivity analysis, sequentially removing individual studies did not substantially influence the SMD values. No publication bias was seen. The effect size was not associated with other study or patient characteristics, including sex, Disease Activity Score-28 (DAS-28), C-reactive protein (CRP), and [erythrocyte sedimentation rate](#) (ESR) in meta-regression.

"The NLR and the PLR, cellular markers of [inflammation](#) that are easily derivable from routine hematological parameters at no additional costs, can increase the capacity to diagnose active disease, over and above available markers such as DAS-28, CRP, and ESR, in patients with RA," the authors write.

**More information:** Angelo Zinellu et al, Neutrophil-to-lymphocyte and platelet-to-lymphocyte ratio and disease activity in rheumatoid arthritis: A systematic review and meta-analysis, *European Journal of Clinical Investigation* (2022). [DOI: 10.1111/eci.13877](https://doi.org/10.1111/eci.13877)

2022 HealthDay. All rights reserved.

Citation: Biomarkers may ID rheumatoid arthritis patients with and without active disease (2022, October 20) retrieved 9 May 2024 from <https://medicalxpress.com/news/2022-10-biomarkers-id-rheumatoid-arthritis-patients.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.