Reply to comment on: Red blood cell distribution in systemic lupus erythematosus and other inflammatory diseases

Sirs,

We greatly appreciate the comments provided by Moreno-Torres and Castejón-Díaz on our work (1). These authors also explored the role of red cell distribution width (RDW) in inflammatory conditions such as sepsis, severe COVID-19, and systemic lupus erythematosus (SLE) (2-4).

In our study on SLE, we found that RDW was linked to serological activity and correlated with SLE disease activity indices (SLEDAI-2K, SLICC/ACR) (1). Moreno-Torres, Castejón-Díaz *et al*. identified interleukin-6 (IL-6) as a key factor influencing elevated RDW in both COVID-19 and SLE, demonstrating that RDW shows a linear correlation with IL-6 levels after adjusting for age and haemoglobin. Their findings suggest that RDW could serve as a valuable parameter for monitoring SLE activity due to the effects of IL-6 on haematopoiesis.

In this context, we also evaluated RDW in 430 patients with rheumatoid arthritis (RA) and 208 controls matched by sex and age (5). We found that RDW was significantly higher in RA patients compared to controls. Additionally, RDW was associated with subclinical cardiovascular disease (CV) risk factors, including dyslipidaemia and insulin resistance, as well as with the SCORE2 CV disease-risk prediction algorithm in patients with RA (5). However, while erythrocyte sedimentation rate showed a positive and significant association with RDW, this association was not observed with C-reactive protein or IL-6 in our RA patient cohort (5). Overall, more research is necessary to validate the role of RDW in inflammatory and autoimmune diseases. This includes further investigation into the role of IL-6 in RDW elevation in SLE.

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