Comment on: Oxidative stress in erythrocytes from patients with rheumatoid arthritis

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Sir,

We read with great interest the article by Staron et al. [1] dealing with an association between oxidative stress parameters in erythrocytes and rheumatoid arthritis (RA) patients. The authors have analyzed thiobarbituric acid, total ATPase, $\text{Na}^+\text{K}^+\text{ATPase}$, $-\text{SH}$, catalase, superoxide dismutase, glutathione peroxidase and glutathione levels in erythrocytes both in patients with RA ($n = 25$) and healthy subjects ($n = 35$). In our opinion, some points of this work are not sufficiently clear.

Firstly, measuring different oxidant and antioxidant molecules is impractical, and their oxidant and antioxidant effects are additive. Since there are numerous oxidants and antioxidants in the body, measuring total oxidant–antioxidant status is more valid and reliable. When only a few parameters are measured, their levels may be unchanged or decreased, even when the actual oxidant status is increased, or vice versa [2]. The authors analyzed some antioxidant and oxidant parameters in their study, and these levels cannot demonstrate the total oxidative status which has been analyzed using erythrocytes in the study population. Indeed, compared to healthy subjects, the authors have found higher thiobarbituric acid levels, lower total ATPase, $\text{Na}^+\text{K}^+\text{ATPase}$, $-\text{SH}$, superoxide dismutase and glutathione levels, neither higher nor lower catalase and glutathione peroxidase levels in patients with RA. Namely, it may be difficult to interpret these results in relation to RA.

Secondly, the authors have selected 25 RA patients (21 women and 4 men); however, the number of the male and female subjects in the control group has not been stated. Additionally, the demographical, anthropometric characteristics of the study groups have not been stated. Age, duration of the disease, whether the disease was active or in remission, medications for RA are the confounding factors that affect the assays. If any, these should be clearly stated in the article. Further, demographical, anthropometric characteristics of the study groups shown either in the results part or in a table could have been better, too.

Finally, the hypothesis and the discussion parts could have been more clear in terms of showing the purpose and the results of the study.

We hope that the above-mentioned items might add to the value of the article by Staron et al. [1].

Conflict of interest The authors declare that there is no conflict of interest.

References

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