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LETTER TO THE EDITOR

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To the Editor

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To the Editor,

I read with great interest the valuable study of Sarhan et al. [1] published in Egyptian Rheumatology and Rehabilitation. In the study, the expression of the autophagy-related gene Beclin-1 was investigated in 204 rheumatoid arthritis (RA) patients, the expression level was compared with healthy controls, and the association between the expression level of Beclin-1 and some disease characteristics such as disease duration, disease activity, acute phase reactants were analyzed. In line with the study of Kardideh et al. [2] the expression level of Beclin-1 was found to be higher in RA patients. In addition to the study of Kardideh et al. [2] the examination of the association between the expression level of Beclin-1 with disease activity parameters, the comparison of its expression in seropositive and seronegative patients is a great contribution to the literature. However, although Sarhan et al. have collected data about the medications used by the patients as seen in Table 1, they have not done a separate analysis for the treatments used. As clearly shown by Kardideh et al. treatment affects the expression level of Beclin-1. Kardideh et al. have shown that expression of Beclin-1 was 3.41 times higher in early RA patients when compared with healthy controls but when RA patients who were receiving treatment were compared with healthy controls the the gene expression level was found to decrease from 3.41 times to 1.5 times. Steroids can obviously affect the gene expression levels [3]. As seen in Table 1, 27.5% of patients in the study of Sarhan et al. are using steroids. A separate analysis for patients using low/moderate/high dose steroids would be valuable. Medications used, especially the steroid dosage, can interfere with the effect of disease activity on gene expression because higher doses are prescribed to those with higher disease activity. For correlation analysis, this confounding factor should also be taken into account.

Sarhan et al. have compared rheumatoid factor (RF) positive/negative patients and anti-cyclic citrullinated peptide (anti-CCP) positive/negative patients within themselves in Table 3. From rheumatological point of view, seronegative RA (both RF and anti-CCP negative) is an important issue [4] so the addition of an analysis comparing both RF and anti-CCP negative patients with RF and/or anti-CCP positive patients would be valuable.

Since Sarhan et al. already have these data, the addition of analysis according to medications used and seropositivity/seronegativity would increase the value of their study and their contribution to the literature.

Lastly, I would also point out another issue. In the discussion part, Sarhan et al. have mentioned that their results demonstrate the significance of Beclin-1 upregulation in vulnerability to RA but although dysregulation in autophagy contributes to the pathogenesis of various autoimmune diseases [5], the design of this study is not appropriate to draw any conclusion about RA vulnerability.

Autophagy and expression of genes that take part in the regulation of this process are interesting and popular topics for immunology and rheumatology. For further studies, investigation of the expression of these genes in preclinical phases of the diseases and in patients who are resistant to conventional therapies would be valuable.

Sincerely yours,

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Author's contributions

The author read and approved the final manuscript.

Declarations

Competing interests
The author declares that he has no competing interests.

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