

Comment on: Study of Oxidative Stress in Vitiligo

Turgay Ulas · Mehmet Sinan Dal · Mehmet Emin Demir ·
Hakan Buyukhatipoglu

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We read with great interest the article by Jain et al. dealing with the association between vitiligo and oxidative stress [1]. The authors have reported an association between vitiligo and increased oxidative stress. 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 [2, 3]. 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. The authors have analyzed only superoxide dismutase and glutathione peroxidase levels in their study, these levels can not demonstrate the oxidative status in the study population. Further, levels of antioxidants have not been analyzed and compared.

Secondly, the authors have revealed that the design of the study is prospective case-control study. We did not see comparisons between a baseline and after a certain period levels. Therefore, design of the study should be cross-sectional. The statistical analysis is not sufficient to show the whole analysis as has been stated in the results. The

comparisons of the oxidative stress parameters among the study and healthy subjects should be performed using Independent Sample *T* test or Mann-Whitney *U* tests, and these should be stated in the statistical analysis part.

Finally, analyzing and comparison of the total antioxidant and total oxidant status levels among groups might have give the best results to assert the oxidative stress involvement in the pathogenesis of the vitiligo.

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

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

References

1. Jain A, Mal J, Mehndiratta V, Chander R, Patra SK. Study of oxidative stress in vitiligo. *Indian J Clin Biochem.* 2011;26:78–81.
2. Erel O. A novel automated method to measure total antioxidant response against potent free radical reactions. *Clin Biochem.* 2004;37:112–9.
3. Erel O. A new automated colorimetric method for measuring total oxidant status. *Clin Biochem.* 2005;38:1103–11.

T. Ulas (✉) · M. E. Demir · H. Buyukhatipoglu
Department of Internal Medicine, Faculty of Medicine, Harran
University School of Medicine, Yenisehir Campus, 63000
Sanliurfa, Turkey
e-mail: turgayulas@yahoo.com

M. S. Dal
Department of Internal Medicine, Faculty of Medicine, Dicle
University, Diyarbakir, Turkey