



Proper Evaluation of Factors Affecting Oxidative Status

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REPLY TO LETTER TO THE EDITOR

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We would first like to thank the authors for their interest in our study.¹ Uric acid and unconjugated bilirubin are strong antioxidant molecules as the authors mention.^{2,3} We are not aware of any studies on the relationship between hyperuricemia, hyperbilirubinemia, and keratoconus. However, Saijyothi et al. have reported higher tear uric acid concentration in keratoconus patients than the control group.⁴ Total oxidant status (TAS) and total antioxidant capacity (TAC) are influenced by systemic disorders and inflammatory conditions as again mentioned by the authors. We believe that we have omitted some exclusion criteria of the study.¹ We would like to thank the authors for their careful evaluation. We excluded any patients with a systemic disorder, known systemic inflammation, or clinical conditions or who were currently being treated with anti-inflammatory medication or antioxidants/vitamins in both the keratoconus and the control groups in our study. The keratoconus group had no known disorder besides keratoconus and the control group had no known disorders. However, the serum TOS and TAC in the keratoconus group were not significantly different than the control group.

The oxidative stress index (OSI) can provide additional information about the oxidative status as mentioned. We reevaluated our data accordingly. We calculated the oxidative stress index using the OSI (arbitrary unit) = TOS (mmol H₂O₂ equiv./L)/TAC (mmol Trolox Equiv./L).⁵ The median OSI value was 2.12 (3.67–0.80) in the keratoconus group and 2.15 (3.39–1.44) in the control group. The difference was not statistically significant ($p = 0.601$).

In conclusion, we think that there was no error in selecting the keratoconus and control group subjects, but information had been omitted.⁴ We did not find any difference between the groups regarding the OSI evaluation that could have made an extra contribution to the article. We thank the authors for pointing out the deficiency in the article and their contribution.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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