


Corneal Epithelial Thickness Correlation with Dry Eye Symptom Severity: A Cross-Sectional Study [Letter]

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Dear editor

We read with great interest the research article titled “Corneal Epithelial Thickness Correlation with Dry Eye Symptom Severity: A Cross-Sectional Study”, published by Barbosa Ribeiro B et al in “Clinical Ophthalmology¹”. This report examines the impact of varying severities of dry eye on corneal epithelial and stromal thickness, concluding that patients with more severe dry eye disease (DED) symptoms exhibit thicker corneal epithelium and thinner stroma. We fully acknowledge the valuable contribution this article has made to the field of dry eye; however, we would like to raise some questions that warrant further discussion.

1. According to Feng Y et al, the axial resolution limit of the Heidelberg Anterior is approximately 8 μm , which is insufficient to accurately resolve the tear film.² Consequently, it remains unclear whether the potential confounding factor of the tear film has been adequately controlled in the measurement of corneal epithelial thickness.
2. The average epithelial thickness in the mild disease group was 47.1 μm , while in the moderate to severe disease group, it was 48.4 μm . Although a statistical difference was observed between the two groups, the magnitude of this difference is unlikely to surpass the axial resolution limit of the Anterior, raising questions about its clinical significance.
3. This study conducted all eye examinations during the same visit; however, it did not specify the sequence of the scanning source optical coherence tomography (SS-OCT), fluorescein staining, and Schirmer testing. If invasive eye examinations were performed first, this could potentially affect the accuracy of corneal epithelial thickness measurements obtained via SS-OCT.
4. This study included both eyes of each subject in the statistical analysis, employing a *T*-test to assess differences between measurement data groups and a Spearman test for bivariate correlations, yet it overlooked the potential impact of inter-eye correlation on the statistical outcomes.

Disclosure

The author(s) report no conflicts of interest in this communication.

References

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