LETTER TO THE EDITOR

Central corneal thickness measurement with Cirrus HD-OCT and Topcon SP-300P

Medición del espesor corneal central con Cirrus HD-OCT y Topcon SP - 300P

Dear Editor,

We read with great interest the article by Calvo-Sanz et al. comparing specular microscopy (SM) with OCT and ultrasound pachymetry (USP).¹

We would like to congratulate with the authors for their excellent paper, because even if corneal thickness (CT) is not the only parameter involved in the reliability of intraocular pressure measurement,² a precise CT measurement is very important both in establishing the corneal health³ and in evaluating the intraocular pressure.⁴

Their paper confirms our belief that SM measurements are in absolute thinner compared to other devices.⁵,⁶

In fact in a previous paper De Bernardo et al. found that CT obtained with this device was thinner than the measurements obtained with Pentacam, and they proposed a regression formula to make the measurements comparable.⁷

We agree with the authors that USP measurements depend on the exact axial placement of the probe making the reproducibility of measurements dependent on examiner expertise.⁸

Concerning the difference between USP and SM, the authors performed the USP after the instillation of topical anesthesia utilizing a combination of 0.1% tetracaine and 0.4% oxybuprocaine.

Theoretically this could have given some differences, because it is true that in a previous published paper it has been demonstrated no influence on CT and volume measurements with the instillation of oxybuprocaine eye drops,⁹ but tetracaine eye drops have been described to cause corneal thickening.¹⁰

So in conclusion we would like to suggest that for future works concerning the comparison of different devices the use of oxybuprocaine, better if preservative free, instead of tetracaine should be advisable.

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References


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LETTER TO THE EDITOR

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