Author’s response to reviews

Title: Assessment of central corneal thickness and corneal endothelial morphology using ultrasound pachmetry, non-contact specular microscopy and Confoscan 4 confocal microscope.

Authors:

Haya M Al Farhan Ph.D (halfarhan@ksu.edu.sa)
Wafa M Al Otaibi MSc. (Walotibi@ksu.edu.sa)
Hanouf M Al Razqan (hano.oo111@windowslive.com)
Alanoud A Al Harqan (alanoudalharqan@hotmail.com)

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Author’s response to reviews: see over
Dear Editors,

I would like to ask you to consider the enclosed manuscript entitled Assessment of central corneal thickness and corneal endothelial morphology using ultrasound pachymetry, non-contact specular microscopy, and Confoscan 4 confocal microscopy” for publication in BMC ophthalmology Journal as an original article.

Several studies have made comparisons of ECD, CV, and CCT measurements of the SP-2000P, CS3, and CS4. To the best of our knowledge, this is the first study to compare the ECD, CV, and CCT measurements obtained with USP, SP-2000P and z-ring CS4 on normal eyes. The aim of this study was to compare the inherent precision of CCT measurements using USP, SP-2000P, and z-ring CS4, based on intra-observer repeatability, and to assess the inter-observer reproducibility using the z-ring CS4. We also aimed to assess the intra-observer repeatability of ECD and CV measured using SP-2000P and z-ring CS4, and the inter-observer reproducibility using the z-ring CS4.

Our conclusion was the SP-2000P and the z-ring CS4 can be used interchangeably to measure ECD and CV. For CCT, USP is comparable to SP-2000P and the z-ring CS4, also indicating that these instruments can be used interchangeably. These findings refute earlier studies where it was concluded that these instruments cannot be considered equivalent.

This manuscript has not been published or presented elsewhere in part or in entirety, and is not under consideration by another journal. All study participants provided informed consent, and the study design was approved by the appropriate ethics review boards. All the authors have approved the manuscript and agree with submission to your esteemed journal. There are no conflicts of interest to declare.

Thank you for your consideration. I look forward to hearing from you.

Yours sincerely,

Dr. Haya M. AlFarhan