

Anterior Chamber Depth Measured with Orbscan and Pentacam Compared with Smith Method in 102 Phakic Eyes

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Abstract : Purpose: Comparing anterior chamber depth (ACD) measured with Orbscan II and Pentacam HR compared with the Smith method results. Methods: Smith method (1979) is a reliable method of measuring ACD only with help of slit lamp. In this study 102 phakic eyes as PRK candidates were imaged with both OrbScan and Pentacam and finally ACD was measured thru Smith method with slit lamp. ACD measured with Smith method was presumed as the gold standard and was compared with ACD of the 2 imaging devices. Contraindication cases for PRK and pseudophakic eyes have been excluded from the study. Results: Mean age of the patients was 35.2 ± 14.8 yrs/old including 56 M(54.9%) and 46 F(45.09%). Acceptable correlation of ACD measured thru Smith method with Orbscan and Pentacam are $R=0.958$ and $R=0.942$ respectively and so Orbscan results can be used in procedures relying on ACD. Conclusion: ACDs measured with OrbScan is more precise than Pentacam and so can be more useful in some surgery procedures relying ACD results such as phakic IOLs and in cycloplegia contraindications.

Keywords : orbscan, pentacam, anterior chamber depth, slit lamp

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