Longitudinal Changes in Macular Optical Coherence Tomography Angiography Metrics in Primary Open-Angle Glaucoma With High Myopia: A Prospective Study

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PURPOSE: To characterize longitudinal changes in macular microvasculature as quantified from optical coherence tomography angiography (OCTA) metrics in primary open-angle glaucoma (POAG) eyes with and without high myopia.

METHODS: In total, 63 and 61 POAG eyes with and without high myopia, respectively, underwent swept-source OCTA imaging in at least four follow-up visits at an ophthalmic center, with a scanning protocol of 3- × 3-mm centered at the fovea. The foveal avascular zone (FAZ) area, FAZ circularity, and vessel density (VD) in both the superficial (SCP) and deep capillary plexuses (DCP) were measured. The rate of change in macular OCTA metrics over time was estimated using linear mixed-effects models in both groups of POAG eyes.

RESULTS: The mean follow-up time and number of visits were 27.72 ± 8.57 months and 8.5 (8 to 13) times, and 30.95 ± 10.19 months and 10 (8?13) times in POAG eyes with and without high myopia, respectively. VD in the

CONCLUSIONS: VD in DCP reduced significantly more quickly in POAG eyes with high myopia over time. Density in the DCP reduced more quickly when baseline VD was low.
Conflict of interest statement

DISCLOSURE: F. Lin, None; F. Li, None; K. Gao, None; W. He, None; J. Zeng, None; Y. Chen, None; M. Chen, None; W. Cheng, None; Y. Song, None; Y. Peng, None; L. Jin, None; T.P.H. Lin, None; Y. Wang, None; C.C. Tham, None; C.Y. Cheung, None; X. Zhang, None

Invest Ophthalmol Vis Sci. 2021 Jan 4;62(1) :30.doi: 10.1167/iovs.62.1.30.

PMID: 33507229