

Supplemental Table. Factors Contributing to the Rate of MvD Angle change Over Time: Univariable and Multivariable Mixed Model Analyses

Variables	Univariable Model		Multivariable Model 1 (includes peak IOP)		Multivariable Model 2 (includes IOP fluctuation)		Multivariable Model 3 (includes number of glaucoma medications)	
	$\beta$ , 95 % CI	P value	$\beta$ , 95 % CI	P value	$\beta$ , 95 % CI	P value	$\beta$ , 95 % CI	P value
Baseline Age, per 10 years older	0.34 (-1.62, 2.30)	0.735	1.13 (-0.85, 3.10)	0.263	1.11 (-0.82, 3.04)	0.259	0.70 (-1.17, 2.58)	0.463
Gender: Female	-1.14 (-5.63, 3.36)	0.621						
Race:								
African American	-2.17 (-7.22, 2.87)	0.399						
Self-reported hypertension	-2.27 (-6.92, 2.39)	0.340						
Self-reported diabetes	-2.66 (-9.01, 3.69)	0.412						
Axial length, per 1mm longer	0.47 (-1.69, 2.64)	0.668						
CCT, per 100 $\mu$ m thinner	-0.94 (-6.19, 4.30)	0.724						
Baseline VF MD, per 1 dB worse	0.35 (-0.07, 0.77)	0.104	0.38 (-0.05, 0.82)	0.086	0.36 (-0.06, 0.78)	0.096	0.18 (-0.25, 0.61)	0.401
Baseline IOP, per 1 mmHg higher	0.13 (-0.39, 0.66)	0.615						
Mean IOP during follow-up, per 1 mmHg higher	0.17 (-0.43, 0.78)	0.570						
Peak IOP during follow-up, per 1 mmHg higher	0.28 (-0.16, 0.71)	0.212	0.36 (-0.08, 0.80)	0.110				
IOP fluctuation, per 1 mmHg higher	1.57 (0.06, 3.09)	<b>0.041</b>			1.65 (0.016, 3.15)	<b>0.030</b>		
IOP follow-up visits (n)	0.96 (-0.16, 2.09)	0.092	0.73 (-0.39, 1.86)	0.203	0.67 (-0.45, 1.78)	0.240		
No. of medication during the follow-up (n)	2.73 (1.05, 4.41)	<b>0.001</b>					2.53 (0.77, 4.28)	<b>0.005</b>

Glaucoma medication use during the follow-up

Prostaglandin, yes	6.37 (0.76, 11.97)	<b>0.026</b>
$\beta$ -blocker, yes	4.90 (0.45, 9.35)	<b>0.031</b>
CAI, yes	3.51 (-0.94, 7.95)	0.122
Brimonidine, yes	6.37 (1.74, 11.00)	<b>0.007</b>
Scan Quality Score, per 1 higher	-2.92 (-6.41, 0.57)	0.101
Follow-up period, per 1 year longer	3.05 (-0.35, 6.45)	0.079
No. of follow-up visits	1.63 (0.02, 3.24)	<b>0.047</b>

CCT = central corneal thickness; IOP = intraocular pressure; MD = mean deviation; MvD = microvascular dropout; VF = visual field. Values are shown in  $\beta$  coefficient (95% confidence interval). The value of MvD area was multiplied by one hundred to enhance the readability of the Table. Statistically significant P values are shown in bold.