Supplemental Table 1. Mixed model analysis of OCT and OCTA parameters associated with logMAR visual acuity based on glaucoma severity Early glaucoma Moderate-advanced glaucoma Superficial VD Deep VD GCC thickness Superficial VD Deep VD GCC thickness **Variables** (per 1% lower) (per 1% lower) (per 1 um thinner) (per 1% lower) (per 1 um thinner) (per 1% lower) β, 95 % CI β, 95 % CI P value β, 95 % CI P value β, 95 % CI β, 95 % CI P value β, 95 % CI P value P value P value Corrected FAZ area. 0.005 0.022 0.037 0.605 per 0.1 mm² increase (-0.014, 0.024)(0.001, 0.044)FAZ circumference. 0.014 0.063 0.035 0.500 per 1mm increase (-0.028, 0.057)(0.005, 0.121)0.002 0.001 FD300 0.687 0.215 (-0.002, 0.006)(-0.004, 0.006)0.000 0.002 0.001 0.002 0.004 0.003 0.642 0.174 0.052 Foveal 0.001 0.727 0.060 (-0.000, 0.004)(-0.002, 0.003)(-0.002, 0.003)(-0.001, 0.005)(-0.000, 0.007)(0.002, 0.005)0.002 0.003 0.003 0.003 0.001 0.005 Parafoveal 0.547 0.175 0.599 <0.001 0.129 0.286 (-0.001, 0.006)(-0.002, 0.007)(-0.001, 0.002)(-0.002, 0.012)(-0.007, 0.012)(0.001, 0.004)0.004 0.001 0.003 0.003 0.003 0.007 Superior hemifield 0.347 0.063 0.499 < 0.001 0.202 0.116 (-0.002, 0.010)(-0.001, 0.003)(-0.007, 0.013) (0.002, 0.005) (-0.001, 0.007)(-0.000, 0.014)0.001 0.003 0.000 0.002 0.001 0.002 0.812 0.602 0.866 Inferior hemifield 0.272 0.882 0.013 (-0.001, 0.004)(-0.004, 0.004)(-0.005, 0.008)(-0.007, 0.008)(-0.001, 0.002)(0.000, 0.003)0.003 -0.001 0.006 0.003 0.001 0.006 Perifoveal 0 448 0.095 0.117 0.013 0.759 0.236 (-0.002, 0.007) (-0.004, 0.005) (-0.004, 0.002) (-0.001, 0.013) (-0.002, 0.013) (0.001, 0.005)0.003 0.001 0.004 -0.001 0.007 0.006 Superior hemifield 0.591 0.047 0.122 0.001 0.659 0.118 (-0.004, 0.006)(-0.001, 0.008)(-0.002, 0.013) (-0.003, 0.002)(0.000, 0.014)(0.001, 0.005)0.000 0.001 -0.001 0.003 0.004 0.001 0.389 0.239 0.253 0.297 Inferior hemifield 0.896 0.640 (-0.004, 0.004)(-0.003, 0.005)(-0.003, 0.001)(-0.002, 0.009)(-0.001, 0.003)(-0.003, 0.010)0.002 -0.001 0.007 0.003 0.002 0.006 Whole-image 0.378 0.105 0.091 0.007 0.563 0.371 (-0.003, 0.007)(-0.004, 0.006)(-0.004, 0.002)(-0.001, 0.014)(-0.001, 0.015)(0.001, 0.005)0.002 0.003 -0.001 0.008 0.007 0.003 Superior hemifield 0.450 0.197 0.658 0.043 0.117 0.001 (-0.004, 0.008)(-0.002, 0.008)(-0.002, 0.016)(-0.003, 0.002)(0.000, 0.016)(0.001, 0.005)

0.610

0.001

(-0.003, 0.005)

0.700

0.001

(-0.003, 0.005)

Inferior hemifield

Abbreviations: CI = confidence interval; FAZ = foveal avascular zone; FD300 = foveal density 300; GCC = ganglion cell complex; OCT = optical coherence tomography; POAG = primary open angle glaucoma; VD = vessel density

0.284

0.003

(-0.003, 0.009)

0.005

(-0.002, 0.012)

0.294

0.001

(-0.001, 0.003)

0.204

0.154

-0.001

(-0.003, 0.001)

^{*}Values are shown in β coefficient (95% CI). A positive β coefficient indicated worse logMAR VA. Statistically significant P values are shown in bold.

^{**}All models were adjusted for age and signal strength index. The FAZ area was additionally adjusted for axial length.