

Estimating Visual Field Loss from Monoscopic Optic Disc Photography using Deep Learning Model

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Supplementary Table S1. Descriptive Statistics of the According to Glaucoma Severity in the Training and Testing Set

	Training/Validation Set			Testing Set		
	Early Stage*	Moderate-to-Severe Stage	P	Early Stage*	Moderate-to-Severe Stage	P
No. of Eyes (patients)	162 (101)	52 (26)	N/A	31 (23)	9 (5)	N/A
No. of images	372	145	N/A	99	20	N/A
Age (years)	55.8 ± 13.0	59.6 ± 14.0	0.041	54.2 ± 8.6	59.1 ± 5.7	0.008
Female (%)	54 (53.5%)	20 (76.9%)	0.167	5 (21.7%)	2 (40.0%)	0.574
IOP (mmHg)	14.1 ± 3.5	15.1 ± 3.1	0.008	14.2 ± 3.2	15.2 ± 2.8	0.132
SE (D)	-2.7 ± 3.0	-3.0 ± 2.8	0.175	-2.5 ± 3.0	-3.2 ± 3.1	0.062
CCT (µm)	535.2 ± 33.5	525.5 ± 40.2	<0.001	522.1 ± 33.2	501.4 ± 35.6	<0.001
SAP MD (dB)	-2.2 ± 2.0	-10.1 ± 3.5	<0.001	-1.6 ± 1.9	-10.0 ± 3.1	<0.001
SAP PSD (dB)	4.8 ± 2.8	11.6 ± 3.3	<0.001	4.7 ± 2.5	10.4 ± 2.1	<0.001

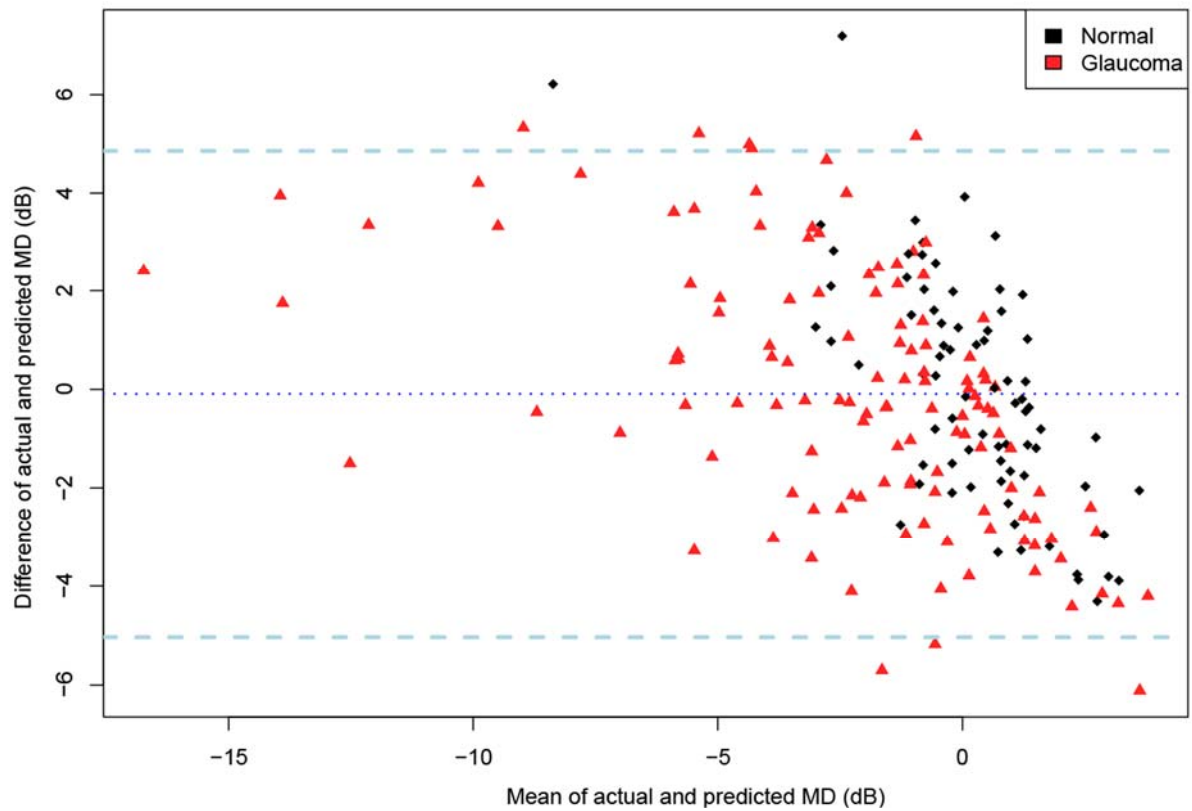
* Mean deviation ≥ -6 dB.

dB = Decibels; D = Diopters; CCT = central corneal thickness; SAP = standard automated perimetry; MD = mean deviation; PSD = pattern standard deviation.

Supplementary Table S2. Performance metrics of deep learning algorithm for quantification of mean deviation (MD) of standard automated perimetry (SAP) by 5-fold cross-validation of entire dataset

	CV #1	CV #2	CV #3	CV #4	CV #5	Mean	SD
R ² score (%)	59.1%	54.9%	59.9%	60.8%	57.7%	58.4%	2.06%
MAE (dB)	1.96	2.10	1.91	1.87	1.92	1.95	0.079

CV = cross-validation; SD = standard deviation; MAE = mean absolute error.



Supplementary Figure S1. Bland-Altman plot demonstrating agreement between prediction and measurement of the test dataset. The predicted mean deviation (MD) showed good agreement with the actual measurement (95% confidence limits (CI) [-4.26 dB, 4.86 dB]). No significant systemic bias was observed (bias = -0.09 dB, 95% CI [-0.44, 0.26]).