Table S1. All variables used in the machine learning classifiers

cRNFL (n=7)	BMO-MRW (n=7)	ETDRS (n=36)		PPAA (n=64)			
cRNFL_T	MRW_T	mFT_T1	GCL_T1	rFT_11	rFT_31	rFT_51	rFT_71
cRNFL_TI	MRW_TI	mFT_T2	GCL_T2	rFT_12	rFT_32	rFT_52	rFT_72
cRNFL_NI	MRW_NI	mFT_I1	GCL_I1	rFT_13	rFT_33	rFT_53	rFT_73
cRNFL_N	MRW_N	mFT_I2	GCL_I2	rFT_14	rFT_34	rFT_54	rFT_74
cRNFL_NS	MRW_NS	mFT_N1	GCL_N1	rFT_15	rFT_35	rFT_55	rFT_75
cRNFL_TS	MRW_TS	mFT_N2	GCL_N2	rFT_16	rFT_36	rFT_56	rFT_76
cRNFL_G	MRW_G	mFT_S1	GCL_S1	rFT_17	rFT_37	rFT_57	rFT_77
		mFT_S2	GCL_S2	rFT_18	rFT_38	rFT_58	rFT_78
		mFT_C	GCL_C	rFT_21	rFT_41	rFT_61	rFT_81
		mRNFL_T1	IPL_T1	rFT_22	rFT_42	rFT_62	rFT_82
		mRNFL_T2	IPL_T2	rFT_23	rFT_43	rFT_63	rFT_83
		mRNFL_I1	IPL_I1	rFT_24	rFT_44	rFT_64	rFT_84
		mRNFL_I2	IPL_I2	rFT_25	rFT_45	rFT_65	rFT_85
		mRNFL_N1	IPL_N1	rFT_26	rFT_46	rFT_66	rFT_86
		mRNFL_N2	IPL_N2	rFT_27	rFT_47	rFT_67	rFT_87
		mRNFL_S1	IPL_S1	rFT_28	rFT_48	rFT_68	rFT_88
		mRNFL_S2	IPL_S2				
		mRNFL_C	IPL_C				

cRNFL: circumpapillary retinal nerve fiber layer; BMO-MRW: Bruch's membrane opening opening-minimal rim width; ETDRS: early treatment diabetes retinopathy study; PPAA: posterior pole asymmetry analysis; mFT: macular full thickness; mRNFL: macular retinal nerve fiber layer; GCL: ganglion cell layer; IPL: inner plexiform layer; rFT: retinal full thickness; T: temporal; TI: inferotemporal; NI: inferonasal; N: nasal; NS: superonasal; TS: superotemporal; G: global; C: central; S: superior; I: inferior

Table S2. Variable importance ranking using the five machine learning classifiers for all glaucoma eyes (only the first 15 important variables shown)

Rank	CIT	LMT	C5.0	RF	XGBoost
1	cRNFL_G	cRNFL_G	GCL_T2	GCL_T2	GCL_T2
2	GCL_T1	GCL_T1	MRW_TI	cRNFL_G	cRNFL_G
3	GCL_T2	GCL_T2	cRNFL_TS	GCL_T1	GCL_T1
4	MRW_G	MRW_G	cRNFL_NS	MRW_G	MRW_G
5	MRW_TI	MRW_TI	GCL_I1	GCL_I1	cRNFL_TS
6	GCL_I1	GCL_I1	mRNFL_S2	cRNFL_TS	GCL_I1
7	cRNFL_TS	cRNFL_TS	cRNFL_TI	MRW_TI	MRW_TI
8	MRW_TS	MRW_TS	GCL_T1	MRW_NI	MRW_NI
9	cRNFL_TI	cRNFL_TI	MRW_N	IPL_T2	MRW_N
10	MRW_NI	MRW_NI	MRW_G	cRNFL_TI	MRW_T
11	IPL_I1	IPL_I1	rFT_33	MRW_TS	MRW_TS
12	GCL_S2	GCL_S2	mRNFL_I1	rFT_28	rFT_28
13	rFT_28	rFT_28	cRNFL_G	GCL_I2	rFT_88
14	IPL_T1	IPL_T1	rFT_88	mRNFL_I2	IPL_T2
15	GCL_S1	GCL_S1	IPL_T1	MRW_T	rFT_33

CIT: conditional inference trees; LMT: logistic model tree; RF: random forest; XGBoost: extreme gradient boosting; AUC: area under the receiver operating characteristic (roc) curve

Table S3. Variable importance ranking using the five machine learning classifiers for early glaucoma eyes (only the first 15 important variables shown)

Rank	CIT	LMT	C5.0	RF	XGBoost
1	GCL_T2	GCL_T2	GCL_T2	GCL_T2	GCL_T2
2	cRNFL_G	cRNFL_G	cRNFL_TS	cRNFL_G	GCL_T1
3	GCL_T1	GCL_T1	MRW_TI	GCL_T1	cRNFL_G
4	MRW_G	MRW_G	mRNFL_S2	MRW_G	MRW_G
5	MRW_TI	MRW_TI	cRNFL_NS	cRNFL_TS	cRNFL_TS
6	cRNFL_TS	cRNFL_TS	GCL_T1	GCL_I1	GCL_I1
7	GCL_I1	GCL_I1	MRW_G	MRW_TS	MRW_TI
8	MRW_TS	MRW_TS	MRW_N	MRW_TI	IPL_T1
9	IPL_T1	IPL_T1	mRNFL_S1	IPL_T2	rFT_88
10	GCL_S2	GCL_S2	rFT_88	MRW_NI	MRW_TS
11	IPL_T2	IPL_T2	GCL_I1	IPL_T1	rFT_23
12	IPL_I1	IPL_I1	mRNFL_I1	rFT_28	MRW_N
13	MRW_NI	MRW_NI	GCL_S2	IPL_I1	IPL_T2
14	GCL_S1	GCL_S1	IPL_T1	MRW_N	MRW_NI
15	MRW_N	MRW_N	IPL_N1	MRW_NS	rFT_28

CIT: conditional inference trees; LMT: logistic model tree; RF: random forest; XGBoost: extreme gradient boosting; AUC: area under the receiver operating characteristic (roc) curve

Table S4. Variable importance ranking using the five machine learning classifiers for moderate glaucoma eyes (only the first 15 important variables shown)

Rank	CIT	LMT	C5.0	RF	XGBoost
1	GCL_T1	cRNFL_G	GCL_T2	GCL_T2	GCL_T2
2	cRNFL_G	GCL_T1	MRW_N	cRNFL_G	cRNFL_G
3	GCL_T2	GCL_T2	cRNFL_G	MRW_G	MRW_G
4	GCL_I1	GCL_I1	GCL_T1	GCL_T1	GCL_T1
5	cRNFL_TI	cRNFL_TS	MRW_G	IPL_T2	MRW_N
6	cRNFL_TS	cRNFL_TI	cRNFL_TS	cRNFL_TS	cRNFL_TS
7	mRNFL_I2	MRW_G	cRNFL_NS	MRW_NI	MRW_NI
8	IPL_T2	IPL_T2	mRNFL_I2	mRNFL_TI	GCL_I1
9	GCL_N1	NFL_I2	MRW_NS	GCL_I1	IPL_T2
10	MRW_G	MRW_NI	cRNFL_TI	MRW_TI	cRNFL_T
11	IPL_I1	MRW_TI	GCL_I1	MRW_N	cRNFL_TI
12	MRW_TI	IPL_I1	mRNFL_I1	mRNFL_I2	rFT_86
13	MRW_NI	GCL_N1	MRW_TI	MRW_NS	mRNFL_I2
14	IPL_T1	GCL_S1	cRNFL_NI	MRW_T	MRW_T
15	GCL_S1	GCL_S2	rFT_54	rFT_28	rFT_33

CIT: conditional inference trees; LMT: logistic model tree; RF: random forest; XGBoost: extreme gradient boosting; AUC: area under the receiver operating characteristic (roc) curve

Table S5. Variable importance ranking using the five machine learning classifiers for severe glaucoma eyes (only 15 most important variables shown)

Rank	CIT	LMT	C5.0	RF	XGBoost
1	MRW_TI	MRW_TI	MRW_T	cRNFL_G	cRNFL_G
2	MRW_G	MRW_G	MRW_TI	MRW_TI	mRNFL_I2
3	cRNFL_G	cRNFL_G	GCL_I1	mRNFL_I2	GCL_I1
4	GCL_I1	GCL_I1	mRNFL_I2	GCL_I1	MRW_TI
5	GCL_T1	GCL_T1	cRNFL_TS	cRNFL_TI	MRW_T
6	MRW_TS	MRW_TS	cRNFL_NS	GCL_I2	GCL_I2
7	mRNFL_I2	mRNFL_I2	cRNFL_G	MRW_G	MRW_G
8	MRW_NS	MRW_NS	GCL_T2	GCL_T1	cRNFL_TI
9	cRNFL_TI	cRNFL_TI	cRNFL_TI	GCL_T2	GCL_T1
10	MRW_NI	MRW_NI	rFT_33	MRW_NI	GCL_T2
11	cRNFL_TS	cRNFL_TS	MRW_G	rFT_28	MRW_TS
12	MRW_T	MRW_T	rFT_43	MRW_TS	MRW_NI
13	rFT_28	rFT_28	MRW_NS	MRW_T	cRNFL_TS
14	MRW_N	MRW_N	GCL_I2	rFT_38	IPL_T2
15	rFT_27	rFT_27	MRW_TS	rFT_17	rFT_28

CIT: conditional inference trees; LMT: logistic model tree; RF: random forest; XGBoost: extreme gradient boosting; AUC: area under the receiver operating characteristic (roc) curve