Supplementary Table S2. Single-feature machine-learning classification performance for gradient-derived regional features in discriminating patients with primary angle-closure glaucoma from healthy controls.

ROI	Model	ACC	AUC	Sens	Spec	F1	Prec
LH_DAN_Post_9	LightGBM	0.696	0.711	0.508	0.835	0.562	0.677
LH_VAN_FrOperIns_2	LightGBM	0.713	0.715	0.567	0.830	0.604	0.692
RH_SMN_9	LightGBM	0.659	0.819	0.608	0.715	0.598	0.751
RH_DMN_Temp_1	LightGBM	0.738	0.654	0.558	0.885	0.650	0.833
LH_DAN_Post_9	LR	0.682	0.751	0.508	0.810	0.552	0.627
LH_VAN_FrOperIns_2	LR	0.727	0.812	0.542	0.880	0.600	0.758
RH_SMN_9	LR	0.700	0.802	0.633	0.770	0.629	0.778
RH_DMN_Temp_1	LR	0.750	0.761	0.592	0.885	0.668	0.843
LH_DAN_Post_9	RF	0.646	0.740	0.550	0.710	0.569	0.635
LH_VAN_FrOperIns_2	RF	0.673	0.728	0.617	0.720	0.592	0.643
RH_SMN_9	RF	0.636	0.789	0.633	0.645	0.597	0.635
RH_DMN_Temp_1	RF	0.725	0.627	0.558	0.860	0.643	0.817
LH_DAN_Post_9	SVM	0.630	0.684	0.442	0.785	0.461	0.510
LH_VAN_FrOperIns_2	SVM	0.686	0.789	0.383	0.930	0.467	0.700
RH_SMN_9	SVM	0.700	0.785	0.542	0.845	0.595	0.808
RH_DMN_Temp_1	SVM	0.696	0.731	0.525	0.835	0.603	0.800
LH_DAN_Post_9	XGBoost	0.655	0.693	0.542	0.730	0.573	0.662
LH_VAN_FrOperIns_2	XGBoost	0.700	0.741	0.558	0.815	0.576	0.718
RH_SMN_9	XGBoost	0.673	0.753	0.658	0.695	0.652	0.708
RH_DMN_Temp_1	XGBoost	0.723	0.641	0.558	0.860	0.643	0.817

This table summarizes compact classification performance for each gradient-derived regional feature across five supervised machine-learning classifiers. Each row represents one feature-model combination. Classification performance was evaluated using accuracy, area under the receiver operating characteristic curve, sensitivity, specificity, F1 score, and precision. Numeric values are rounded to three decimal places for readability.

Abbreviations: PACG, primary angle-closure glaucoma; HC, healthy control; ROI, region of interest; ACC, accuracy; AUC, area under the receiver operating characteristic curve; Sens, sensitivity; Spec, specificity; Prec, precision; LR, regularized Logistic Regression; RF, Random Forest; LightGBM, Light Gradient Boosting Machine; SVM, support vector machine; XGBoost, eXtreme Gradient Boosting; LH, left hemisphere; RH, right hemisphere; DAN, dorsal attention network; VAN, ventral attention/salience network; SMN, somatomotor network; DMN, default mode network; FrOperIns, frontal operculum/insula; Temp, temporal cortex.

Machine-learning analyses included 34 patients with primary angle-closure glaucoma and 42 healthy controls. Classification performance was evaluated using nested 10-fold cross-validation, with receiver operating characteristic area under the curve as the primary metric. No parametric p-values were calculated for model performance; instead, model evaluation was based on cross-validated classification metrics. SHAP values were computed to quantify global and sample-level feature contributions to model prediction.