

Supplementary Table S2. Genotype–phenotype links in RP identified by AO/OCTA.

Measurement	Cilium	RNA Splicing	Phototransduction	Metabolism-Related	Kruskal-Wallis test (<i>p</i> -value)	Dunn's multiple comparisons test (<i>p</i> -value)		
						Cilium	Cilium	Cilium
						v.s. RNA Splicing	v.s. Phototransduction	v.s. Metabolism-Related
thickness of inner retina	61.89 ± 39.16	47.07 ± 4.91	68.16 ± 22.76	93.09 ± 38.25	0.2037	ns	ns	ns
thickness of outer retina	212 ± 41.48	134.3 ± 62.46	143.6 ± 83.74	170.5 ± 97.11	0.2179	ns	ns	ns
thickness of retina	274 ± 70.96	211.5 ± 63.77	233.2 ± 76.72	267.2 ± 94.63	0.3801	ns	ns	ns
thickness of retina CRT	238.5 ± 87.33	211.5 ± 63.77	213.8 ± 48.85	251.2 ± 90.02	0.8313	ns	ns	ns
choriod thickness	372 ± 83.8	192.6 ± 36.07	312.2 ± 54.91	219.4 ± 93.32	0.0008	0.0045	ns	0.0474
bloodflow superficial	24.89 ± 13.77	7.79 ± 3.31	18.08 ± 11.5	28.66 ± 12.05	0.0768	ns	ns	ns
bloodflow deep	16.11 ± 14.22	6.16 ± 6.93	4.26 ± 5.34	26.6 ± 18.86	0.0937	ns	ns	ns
bloodflow retina	25.56 ± 13.35	7.58 ± 6.99	15.48 ± 10.67	32.25 ± 15.86	0.0347	ns	ns	ns
density	28054 ± 4307	27036 ± 11739	26428 ± 12338	19576 ± 20541	0.953	ns	ns	ns
spacing	6.39 ± 0.84	4.73 ± 1.59	4.54 ± 0.94	6.83 ± 3.65	0.0141	ns	ns	0.0285
regularity	89.66 ± 1.50	92.71 ± 0.39	92.93 ± 1.40	93.33 ± 1.03	0.0079	ns	ns	0.0106
dispersion	16.8 ± 4.24	27.8 ± 9.29	21.13 ± 4.31	27.79 ± 4.57	0.0097	ns	ns	ns
Age	44.78 ± 13.80	37.00 ± 13.86	31.00 ± 3.23	42.67 ± 10.97	0.0738	ns	ns	ns
LogMAR	1.15 ± 0.88	0.97 ± 1.01	0.97 ± 0.72	1.04 ± 1.38	0.9042	ns	ns	ns

Data are presented as mean ± standard deviation. Sample size: eyes from 16 genetically confirmed RP patients stratified into four functional mutation groups. Overall inter-group comparisons were performed using the Kruskal-Wallis test; Dunn's multiple comparisons test was used for post-hoc pairwise comparisons. A *p*-value < 0.05 was considered statistically significant. ns, not significant.