

Supplementary Materials

Table S1: Complete OCTA parameters of RP patients and healthy controls. The following abbreviations are used: superficial capillary plexus (SCP), deep capillary plexus (DCP) and choriocapillary (CC). Macular and optic nerve head plexa are distinguished by “m” and “n”, respectively.

OCTA Parameters in Retinitis Pigmentosa														
Vessel Density Analysis														
Vascular Plexus	mSCP	p Value	mDCP	p Value	mCC	p Value	RPC	p Value	nSCP	p Value	nDCP	p Value	nCC	p Value
RP	0.39 ± 0.02	<i>p < 0.01</i>	0.36 ± 0.03	<i>p < 0.01</i>	0.49 ± 0.01	<i>p < 0.01</i>	0.40 ± 0.02	<i>p < 0.01</i>	0.42 ± 0.03	<i>p > 0.05</i>	0.30 ± 0.02	<i>p < 0.01</i>	0.54 ± 0.05	<i>p > 0.05</i>
Controls	0.41 ± 0.01		0.43 ± 0.01		0.50 ± 0.01		0.45 ± 0.01		0.43 ± 0.01		0.39 ± 0.02		0.54 ± 0.03	
Vessel Dispersion Analysis														
Vascular Plexus	mSCP	p Value	mDCP	p Value	RPC	p Value	nSCP	p Value	nDCP	p Value				
RP Patients	24 ± 15	<i>p < 0.01</i>	16 ± 12	<i>p < 0.01</i>	37 ± 15	<i>p < 0.01</i>	27 ± 14	<i>p < 0.01</i>	35 ± 13	<i>p < 0.01</i>				
Controls	11 ± 4		11 ± 3		11 ± 4		10 ± 3		10 ± 3					
Vessel Tortuosity Analysis														
Vascular Plexus	mSCP	p Value	mDCP	p Value	RPC	p Value	nSCP	p Value	nDCP	p Value				
RP Patients	4.80 ± 0.29	<i>p < 0.01</i>	4.42 ± 0.49	<i>p < 0.01</i>	5.11 ± 0.39	<i>p < 0.01</i>	5.27 ± 0.26	<i>p < 0.01</i>	4.01 ± 0.25	<i>p < 0.01</i>				
Controls	7.20 ± 0.31		7.84 ± 0.34		7.73 ± 0.30		8.42 ± 0.33		7.06 ± 0.25					
Vessel Rarefaction Analysis														
Vascular Plexus	mSCP	p Value	mDCP	p Value	RPC	p Value	nSCP	p Value	nDCP	p Value				
RP Patients	0.66 ± 0.04	<i>p < 0.01</i>	0.62 ± 0.03	<i>p < 0.01</i>	0.64 ± 0.08	<i>p < 0.01</i>	0.67 ± 0.05	<i>p < 0.01</i>	0.48 ± 0.04	<i>p < 0.01</i>				
Controls	1.80 ± 0.32		1.09 ± 0.20		1.15 ± 0.22		1.52 ± 0.16		0.99 ± 0.07					

Table S2: Correlation analysis of quantitative parameters. All statistically significant correlations are reported. The following abbreviations are used: superficial capillary plexus (SCP), deep capillary plexus (DCP) and choriocapillary (CC). Macular and optic nerve head plexa are distinguished by “m” and “n”, respectively.

				Correlation Analysis																							
	VD Mean	Vdisp Mean																									
AGE	Tau Coeff. <i>p</i> value	-0.282 0.02	0.286 0.02																								
	CMT	BCVA (logMAR)	VD mSCP	VD mDCP	VD mCC	VD RPC	VD nSCP	VD nDCP	VD nCC	VD Mean	Vdisp Mean	VT mSCP	VT mDCP	VT RPC	VT nSCP	VT nDCP	VT Mean	VR mSCP	VR mDCP	VR RPC	VR nSCP	VR nDCP	VR Mean				
RNFL	Tau Coeff. <i>p</i> value	0.375 <0.01	-0.548 <0.01	0.529 <0.01	0.255 0.04	0.44 <0.01	0.695 <0.01	0.588 <0.01	0.447 <0.01	0.424 <0.01	0.578 <0.01	-0.368 <0.01	0.287 0.02	0.376 <0.01	0.477 <0.01	0.251 0.04	0.36 <0.01	0.448 <0.01	-0.392 <0.01	-0.396 <0.01	-0.505 <0.01	-0.44 <0.01	-0.291 0.02	-0.481 <0.01			
	BCVA (logMAR)	VD mSCP	VD mDCP	VD mCC	VD RPC	VD nSCP	VD nDCP	VD nCC	VD Mean	Vdisp mSCP	Vdisp RPC	Vdisp nSCP	Vdisp nDCP	Vdisp Mean	VT mSCP	VT mDCP	VT RPC	VT nSCP	VT nDCP	VT Mean	VR mSCP	VR mDCP	VR RPC	VR nSCP	VR nDCP	VR Mean	
CMT	Tau Coeff. <i>p</i> value	-0.673 <0.01	0.52 <0.01	0.313 <0.01	0.516 <0.01	0.423 <0.01	0.466 <0.01	0.352 <0.01	0.415 <0.01	0.479 <0.01	-0.451 <0.01	-0.289 0.02	-0.366 <0.01	-0.281 0.02	-0.447 <0.01	0.568 <0.01	0.354 <0.01	0.556 <0.01	0.633 <0.01	0.455 <0.01	0.576 <0.01	-0.564 <0.01	-0.601 <0.01	-0.52 <0.01	-0.495 <0.01	-0.52 <0.01	-0.625 <0.01
	VD mSCP	VD mDCP	VD mCC	VD RPC	VD nSCP	VD nDCP	VD nCC	VD Mean	Vdisp mSCP	Vdisp RPC	Vdisp nSCP	Vdisp nDCP	Vdisp Mean	VT mSCP	VT mDCP	VT RPC	VT nSCP	VT nDCP	VT Mean	VR mSCP	VR mDCP	VR RPC	VR nSCP	VR nDCP	VR Mean		
BCVA (logMAR)	Tau Coeff. <i>p</i> value	-0.443 <0.01	-0.463 <0.01	-0.592 <0.01	-0.506 <0.01	-0.461 <0.01	-0.278 0.04	-0.558 <0.01	-0.573 <0.01	0.563 <0.01	0.371 <0.01	0.429 <0.01	0.371 <0.01	0.563 <0.01	-0.621 <0.01	-0.463 <0.01	-0.568 <0.01	-0.64 <0.01	-0.52 <0.01	-0.712 <0.01	0.645 <0.01	0.573 <0.01	0.602 <0.01	0.592 <0.01	0.472 <0.01	0.721 <0.01	

Table S3: Complete cutoff analysis in Retinitis Pigmentosa. GROUP1 was defined with mean VT > 4.80 and mean VR < 0.62. whereas GROUP2 was defined with mean VT < 4.80 and mean VR > 0.62. The following abbreviations are used: superficial capillary plexus (SCP), deep capillary plexus (DCP) and choriocapillary (CC). Macular and optic nerve head plexa are distinguished by “m” and “n”, respectively.

OCTA Cutoff Analysis			
Parameter	Mean ± STD	<i>p</i> values	
RNFL	RP1 96 ± 10	RP1 vs RP2 <0.01	
	RP2 62 ± 10	RP1 vs Controls 0.286	
	Controls 101 ± 9	RP2 vs Controls <0.01	
CMT	RP1 247 ± 21	RP1 vs RP2 <0.01	
	RP2 209 ± 23	RP1 vs Controls <0.01	
	Controls 302 ± 19	RP2 vs Controls <0.01	
BCVA (logMAR)	RP1 0.01 ± 0.04	RP1 vs RP2 <0.01	
	RP2 0.49 ± 0.38	RP1 vs Controls 0.94	
	Controls 0 ± 0	RP2 vs Controls <0.01	
VD mSCP	RP1 0.41 ± 0.02	RP1 vs RP2 <0.01	
	RP2 0.38 ± 0.01	RP1 vs Controls 0.976	
	Controls 0.41 ± 0.01	RP2 vs Controls <0.01	
VD mDCP	RP1 0.37 ± 0.03	RP1 vs RP2 <0.01	
	RP2 0.35 ± 0.02	RP1 vs Controls <0.01	
	Controls 0.43 ± 0.01	RP2 vs Controls <0.01	
VD mCC	RP1 0.50 ± 0.02	RP1 vs RP2 <0.01	
	RP2 0.47 ± 0.01	RP1 vs Controls 0.768	
	Controls 0.50 ± 0.01	RP2 vs Controls <0.01	
VD RPC	RP1 0.45 ± 0.01	RP1 vs RP2 <0.01	
	RP2 0.38 ± 0.02	RP1 vs Controls 0.604	
	Controls 0.45 ± 0.01	RP2 vs Controls <0.01	
VD nSCP	RP1 0.43 ± 0.01	RP1 vs RP2 <0.01	
	RP2 0.40 ± 0.02	RP1 vs Controls 0.582	
	Controls 0.43 ± 0.01	RP2 vs Controls <0.01	
VD nDCP	RP1 0.31 ± 0.01	RP1 vs RP2 <0.01	
	RP2 0.29 ± 0.03	RP1 vs Controls <0.01	
	Controls 0.40 ± 0.02	RP2 vs Controls <0.01	
VD nCC	RP1 0.53 ± 0.02	RP1 vs RP2 <0.01	
	RP2 0.48 ± 0.05	RP1 vs Controls 0.88	
	Controls 0.54 ± 0.03	RP2 vs Controls <0.01	
VD Mean	RP1 0.43 ± 0.01	RP1 vs RP2 0.06	
	RP2 0.39 ± 0.01	RP1 vs Controls <0.01	
	Controls 0.45 ± 0.01	RP2 vs Controls <0.01	
Vdisp mSCP	RP1 12.76 ± 3.71	RP1 vs RP2 <0.01	
	RP2 21.42 ± 15.77	RP1 vs Controls 0.92	

	Controls	10.72 ± 4.15		RP2 vs Controls	<0.01
Vdisp mDCP	RP1	13.66 ± 4.51		RP1 vs RP2	<0.01
	RP2	34.75 ± 9.43		RP1 vs Controls	0.53
	Controls	11.45 ± 3.48		RP2 vs Controls	<0.01
Vdisp RPC	RP1	24.11 ± 6.33		RP1 vs RP2	<0.01
	RP2	38.23 ± 16.41		RP1 vs Controls	<0.01
	Controls	10.61 ± 3.70		RP2 vs Controls	<0.01
Vdisp nSCP	RP1	20.47 ± 7.90		RP1 vs RP2	<0.01
	RP2	35.15 ± 11.14		RP1 vs Controls	<0.01
	Controls	10.35 ± 2.88		RP2 vs Controls	<0.01
Vdisp nDCP	RP1	25.58 ± 9.75		RP1 vs RP2	<0.01
	RP2	41.12 ± 11.27		RP1 vs Controls	<0.01
	Controls	10.37 ± 3.36		RP2 vs Controls	<0.01
Vdisp Mean	RP1	19.63 ± 4.40		RP1 vs RP2	<0.01
	RP2	30.13 ± 5.47		RP1 vs Controls	<0.01
	Controls	10.70 ± 1.35		RP2 vs Controls	<0.01
VT mSCP	RP1	5.16 ± 0.34		RP1 vs RP2	<0.01
	RP2	4.56 ± 0.15		RP1 vs Controls	<0.01
	Controls	7.20 ± 0.31		RP2 vs Controls	<0.01
VT mDCP	RP1	4.86 ± 0.29		RP1 vs RP2	<0.01
	RP2	4.23 ± 0.35		RP1 vs Controls	<0.01
	Controls	7.84 ± 0.34		RP2 vs Controls	<0.01
VT RPC	RP1	5.48 ± 0.40		RP1 vs RP2	<0.01
	RP2	4.87 ± 0.26		RP1 vs Controls	<0.01
	Controls	7.73 ± 0.30		RP2 vs Controls	<0.01
VT nSCP	RP1	5.55 ± 0.32		RP1 vs RP2	<0.01
	RP2	4.97 ± 0.36		RP1 vs Controls	<0.01
	Controls	8.42 ± 0.33		RP2 vs Controls	<0.01
VT nDCP	RP1	4.50 ± 0.45		RP1 vs RP2	<0.01
	RP2	3.92 ± 0.27		RP1 vs Controls	<0.01
	Controls	7.06 ± 0.25		RP2 vs Controls	<0.01
VT Mean	RP1	5.11 ± 0.25		RP1 vs RP2	<0.01
	RP2	4.51 ± 0.12		RP1 vs Controls	<0.01
	Controls	7.65 ± 0.23		RP2 vs Controls	<0.01
VR mSCP	RP1	0.62 ± 0.03		RP1 vs RP2	<0.01
	RP2	0.70 ± 0.02		RP1 vs Controls	<0.01
	Controls	0.41 ± 0.01		RP2 vs Controls	<0.01
VR mDCP	RP1	0.59 ± 0.03		RP1 vs RP2	<0.01
	RP2	0.65 ± 0.02		RP1 vs Controls	<0.01
	Controls	0.43 ± 0.01		RP2 vs Controls	<0.01
VR RPC	RP1	0.59 ± 0.07		RP1 vs RP2	<0.01
	RP2	0.69 ± 0.03		RP1 vs Controls	<0.01

	Controls	0.47 ± 0.01	RP2 vs Controls	<0.01
VR nSCP	RP1	0.61 ± 0.04	RP1 vs RP2	<0.01
	RP2	0.70 ± 0.04	RP1 vs Controls	<0.01
	Controls	0.46 ± 0.01	RP2 vs Controls	<0.01
VR nDCP	RP1	0.48 ± 0.06	RP1 vs RP2	<0.01
	RP2	0.54 ± 0.05	RP1 vs Controls	<0.01
	Controls	0.42 ± 0.01	RP2 vs Controls	<0.01
VR Mean	RP1	0.58 ± 0.04	RP1 vs RP2	<0.01
	RP2	0.66 ± 0.01	RP1 vs Controls	<0.01
	Controls	0.44 ± 0.01	RP2 vs Controls	<0.01