

Supplementary Table 2

Table 2. Association between cognitive performance and macular pigment optical volume by retinal eccentricity.

SENSE	Domain of cognitive function	Mean (SD) All=65	MPOV 1°		MPOV 9°	
			r	p	r	p
	Processing Speed					
-VE	MOT Latency, ms	732.91(163.53)	-0.08	0.51	0.165	0.19
-VE	RTI Simple Mean, ms	434.63(65.04)	-0.14	0.24	0.032	0.79
-VE	MTT Median Reaction Latency, ms	863.71(120.75)	-0.10	0.41	0.079	0.53
	Attention					
-VE	RTI Median Five Choice, ms	415.95(53.58)	-0.11	0.35	0.030	0.81
-VE	RTI Median Five-Choice Movement, ms	243.43(41.99)	0.00	0.95	0.210	0.09
-VE	MTT Total Incorrect	12.68(12.57)	-0.24	0.04	0.073	0.56
	Inhibition					
-VE	SST Reaction Time, ms	338.72(70.60)	-0.09	0.46	0.090	0.47
-VE	Post Error Slowing	6.79(11.09)	0.24	0.05	-0.054	0.66
-VE	Post Success Slowing	-3.54(9.00)	-0.03	0.79	0.012	0.92
	Cognitive Flexibility					
CX	‡ MTT Median Incongruency Cost, ms	60.59(69.55)	-0.03	0.78	0.242	0.05
CX	MTT Median Multitasking Cost, ms	200.88(72.03)	-0.03	0.80	-0.003	0.97
+VE	Semantic Fluency	16.66(4.21)	0.23	0.610 ^a	-0.012	0.92 ^a
+VE	Phonemic Fluency	12.02(3.36)	0.035	0.78 ^a	-0.045	0.72 ^a
	Working memory					
+VE	SSP Forward Span Length	5.37(1.46)	0.264	0.03^a	-0.098	0.43 ^a
	Episodic Memory					
-VE	PAL Total Errors (Adjusted)	12.68(14.96)	- 0.183	0.14 ^a	- 0.052	0.67 ^a
+VE	PAL First Attempt Memory Score	13.54(4.24)	0.196	0.11 ^a	0.134	0.28 ^a

ms=milliseconds, SD= Standard deviation; r= Correlation coefficient, MPOV, Macular Pigment Optical Volume; Sense +VE =positive; -VE =negative; CX = complicated. This shows whether higher scores indicate better ("+ve") or worse ("-ve") performance. For the cognitive measures in the negative sense, the lower scores are desirable. For measures on MTT under cognitive flexibility, positive scores imply faster performance on congruent trials, whereas negative scores show faster performance on incongruent trials. Higher incongruency costs reflect slower processing of conflicting information. A higher negative score suggests faster response times and a lower cost of maintaining many sources of information. MOT-motor screening test; RTI-Reaction time; MTT-multitasking task; SST-Stop signal task; SSP-Spatial span; PAL-Paired associate

learning. The calculation of post error slowing (PES) and post success slowing (PSS) for successful non-error trials involved comparing the reaction times for "Go-after-go trials" and "Go-after-failure to stop trials," as well as "Go-after-go trials" and "Go-after-successful stop trials" from the SST inhibition task. ‡- log transformed variable. Statistical were made using ^aSpearman for non-normally distributed and Pearson for normally distributed variables; Significance set at $p < 0.05$ (2-tailed).