

Table e-1: Missing data

Measure		Missing Control	Missing PD
Acuity (LogMAR)		1	1
Contrast sensitivity (Pelli robson)		0	0
Colour vision (Log D15 error score)		0	3
Visuo-perception: Cats-and-dogs		0	2
Retinal structure (exclusions)		4	5
Reasons for OCT exclusions	Myopic	2	0
	Peripapillary atrophy		
	Macular Retinoschisis	0	1
	Poor quality scan	2	4
Reasons for other eye being selected	Myelinated nerve fibre region	0	1
	Detached retina	0	1
	Retro bulbar neuritis	0	1
	Macular atrophy	0	1
	Cataracts affecting quality of scan	0	3
	Epiretinal membrane traction	0	1
	Dry macular degeneration	1	0

Table e-2: Visual measures compared between lowest and highest quartiles for risk of dementia

Visual measure	Lowest Risk N=29	Highest Risk N=28	t (or W)	p
Acuity (LogMAR)	-0.15 (0.08)	-0.046 (0.14)	-3.3 (42)	0.0019**
Contrast sensitivity (Pelli-Robson)	1.87 (0.1)	1.73 (0.2)	580 [°]	0.0027**
Colour vision (Log D15 error score)	0.13 (0.3)	0.39 (0.5)	270.5 [°]	0.026
Visuo-perception: Cats-and-dogs	2.1 (0.5)	1.7 (0.6)	2.5 (54)	0.014
Visuo-perception: Biological motion	19.5 (14)	11.2 (8)	546 [°]	0.025
IPL thickness	304 (20)	285 (23)	3.2 (51)	0.0021**
IPL volume	0.88 (0.06)	0.82 (0.07)	3.6 (51)	0.00077**
GCL thickness	349 (27)	330 (37)	2.1 (47)	0.039
GCL volume	1.03 (0.09)	0.99 (0.1)	2.9 (51)	0.0062**
RNFL thickness	248 (30)	251 (27)	-0.35 (52)	0.72
RNFL volume	0.92 (0.1)	0.93 (0.1)	-0.07 (51)	0.76

** indicates significant after Bonferroni correction ($p < 0.0063$)

Table e-3: Relationship between visual measures and PD dementia risk using modified algorithm (adapted with MOCA substituted for MMSE)

Visual measures		Rho	<i>p</i>	
Visual measures	Acuity (LogMAR)	0.32	0.00051**	
	Contrast sensitivity (Pelli-Robson)	-0.42	<0.0001**	
	Colour vision (Log D15 error score)	0.31	0.0012**	
	Visuo-perception: Cats-and-dogs	-0.31	0.00080**	
	Visuo-perception: Biological motion	-0.33	0.00033**	
	Retinal structure	IPL thickness	-0.33	0.00060**
		IPL volume	-0.33	0.00056**
		GCL thickness	-0.31	0.0011**
GCL volume		-0.31	0.0010**	
RNFL thickness		0.027	0.78	
RNFL volume		0.035	0.72	

** indicates significant after Bonferroni correction ($p < 0.0063$)