

Appendix 1

Parameters of the magnetic resonance (MR) sequences used for image analysis

Siemens magnetic resonance imaging (MRI)

The sagittal T1-magnetization-prepared rapid gradient echo (MPRAGE) images were acquired with the following parameters: repetition time (TR) =2,200 ms, echo time (TE) =2.26 ms, inversion time (TI) =900 ms, field of view (FOV) =256×256 mm², flip angle =150°, matrix size =256×256 mm², voxel size =0.5×0.5×1 mm³, slice thickness =1 mm. Axial T2: TR =5,000 ms, TE =100 ms, TI =900 ms, FOV =240 mm, flip angle =150°, voxel size =0.5×0.5×4 mm³, slice thickness =4 mm. Diffusion-weighted imaging (DWI): TR/TE1/TE2 =5,970/57/97 ms, FOV =240 mm, section thickness/gap =3 mm/1 mm, voxel size: 1.3×1.3×3.0 mm³, diffusion gradient encoding: b=0, 1,000 s/mm².

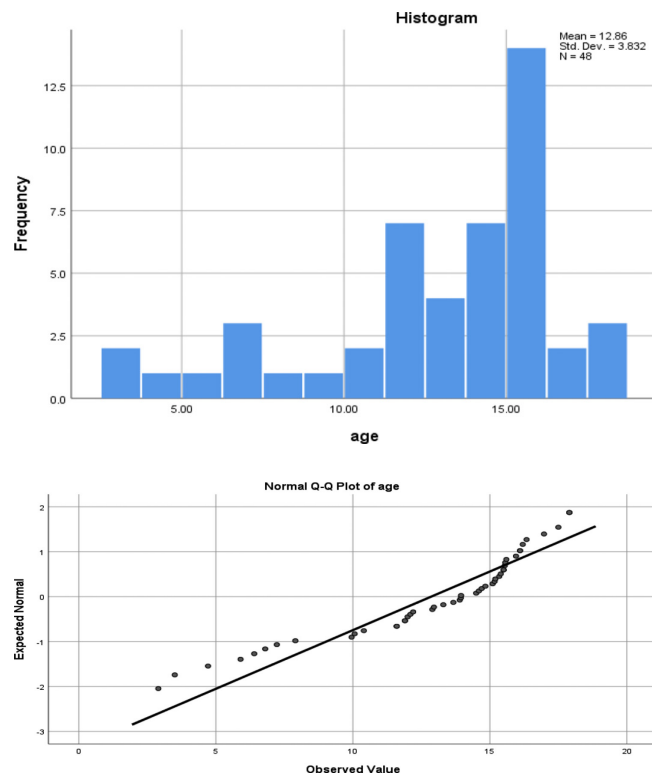
Philips MRI

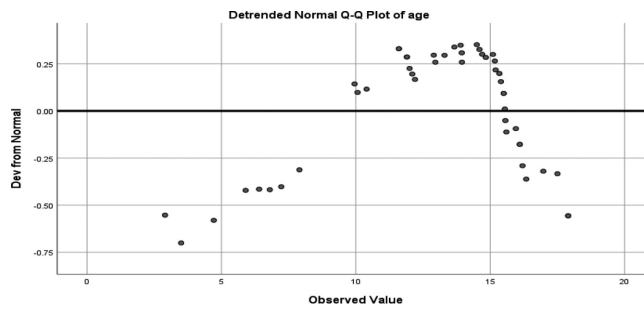
The sagittal T1-turbo field echo (TFE) images were acquired with the following parameters: TR =6.7 ms, TE =3 ms, FOV =240×240 mm², flip angle =8°, matrix size =240×240 mm², voxel size =1×1×1 mm³, slice thickness =1 mm. Axial T2: TR =3,399 ms, TE =100 ms, FOV =240×185 mm², flip angle =150°, matrix size =400×265 mm², voxel size =0.6×0.65×4 mm³, section thickness/gap =4 mm/0.4 mm. DWI: TR =5,664 ms, TE =71 ms, FOV =240×240 mm², matrix size =160×126 mm², section thickness/gap =3 mm/0.3 mm, voxel size: 1.5×1.9×3.0 mm³, diffusion gradient encoding: b=0, 1,000 s/mm².

Appendix 2

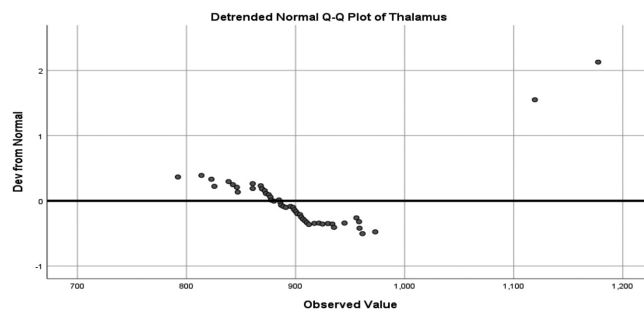
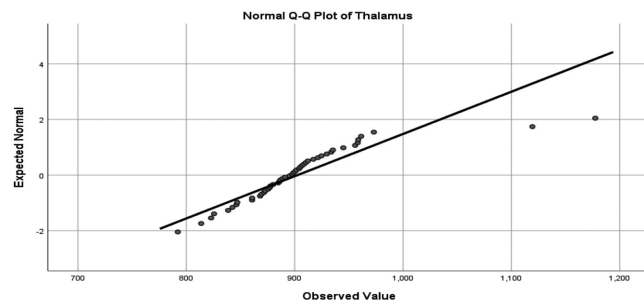
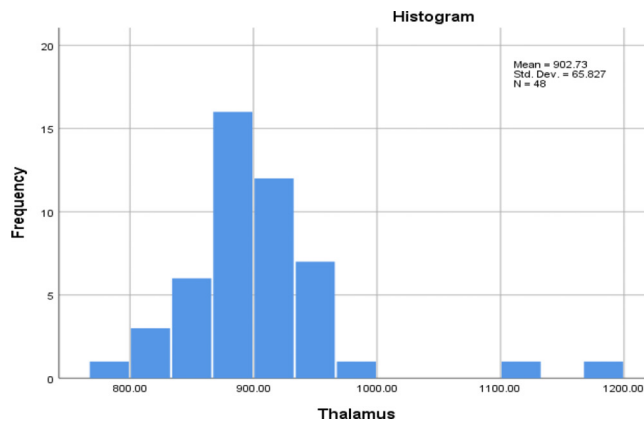
Assessment of normality for continuous variables using the histograms and Q-Q plots

Age (years)

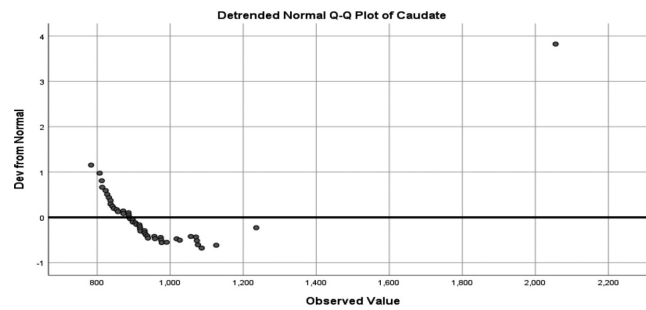
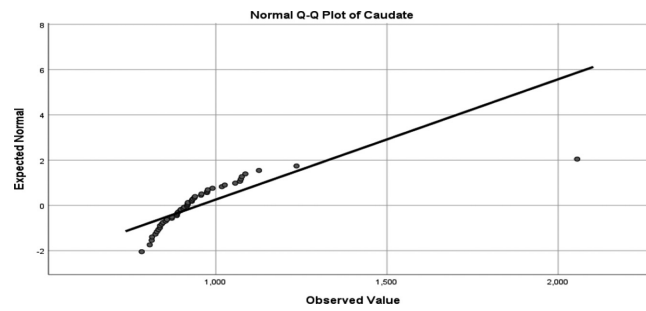
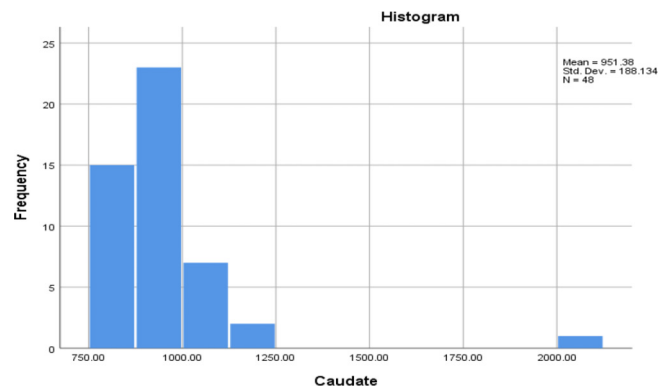




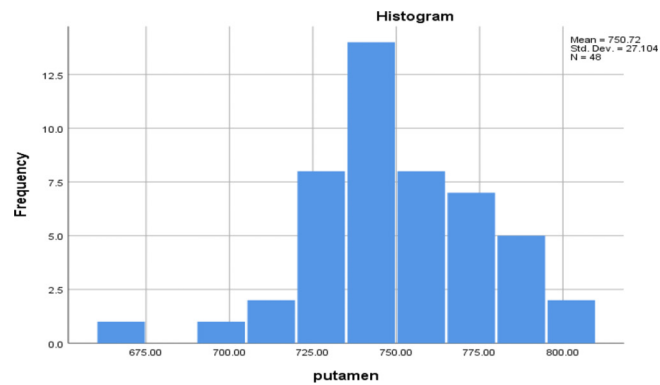
Thalamus apparent diffusion coefficient (ADC) values (mm^2/s)

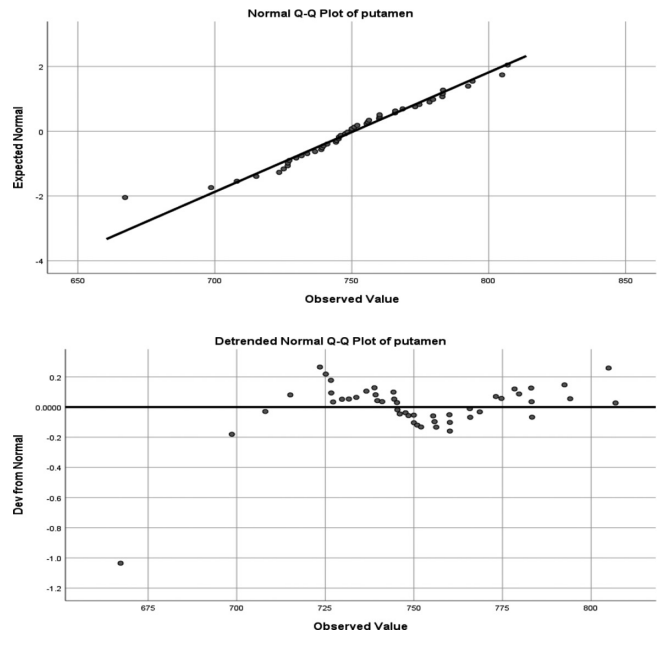


Caudate ADC values (mm²/s)

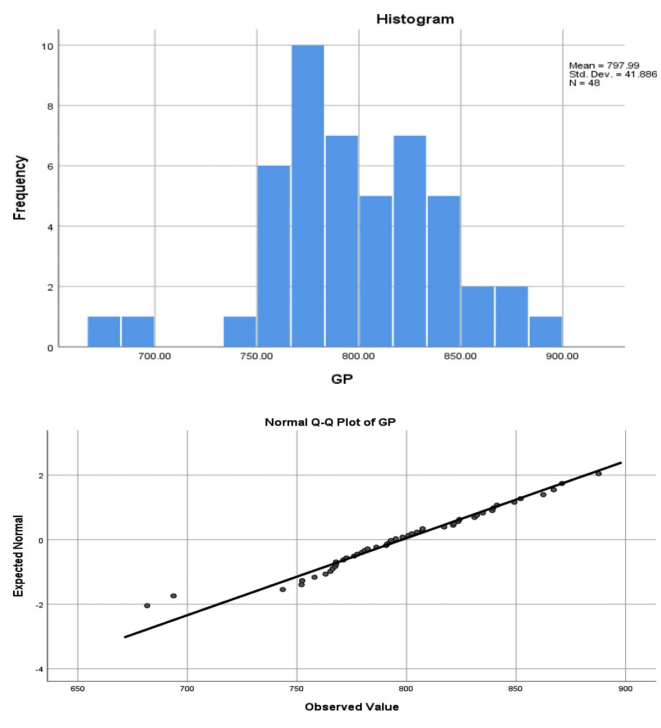


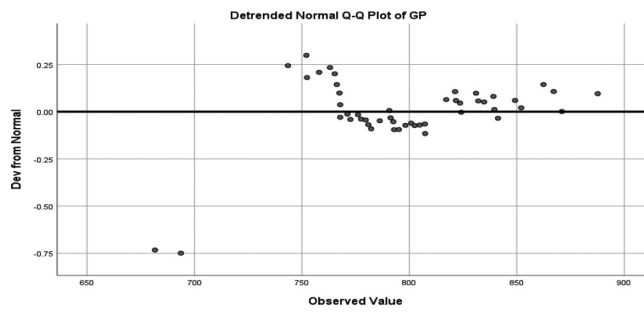
Putamen ADC values (mm²/s)



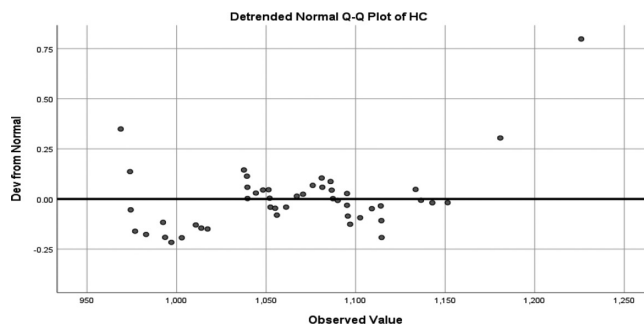
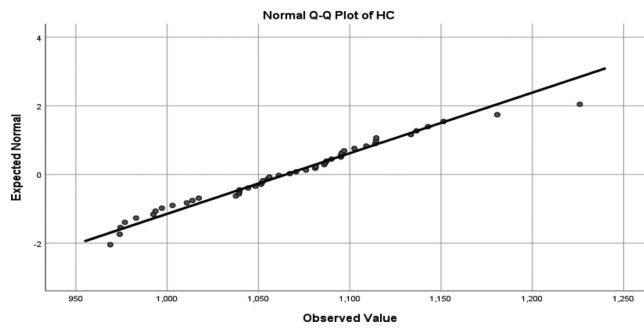
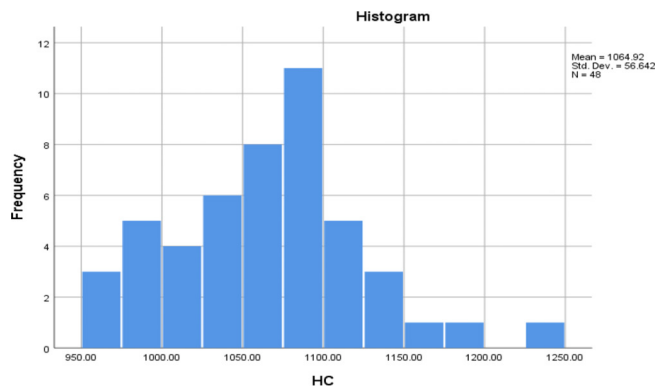


Globus pallidus (GP) ADC values (mm²/s)

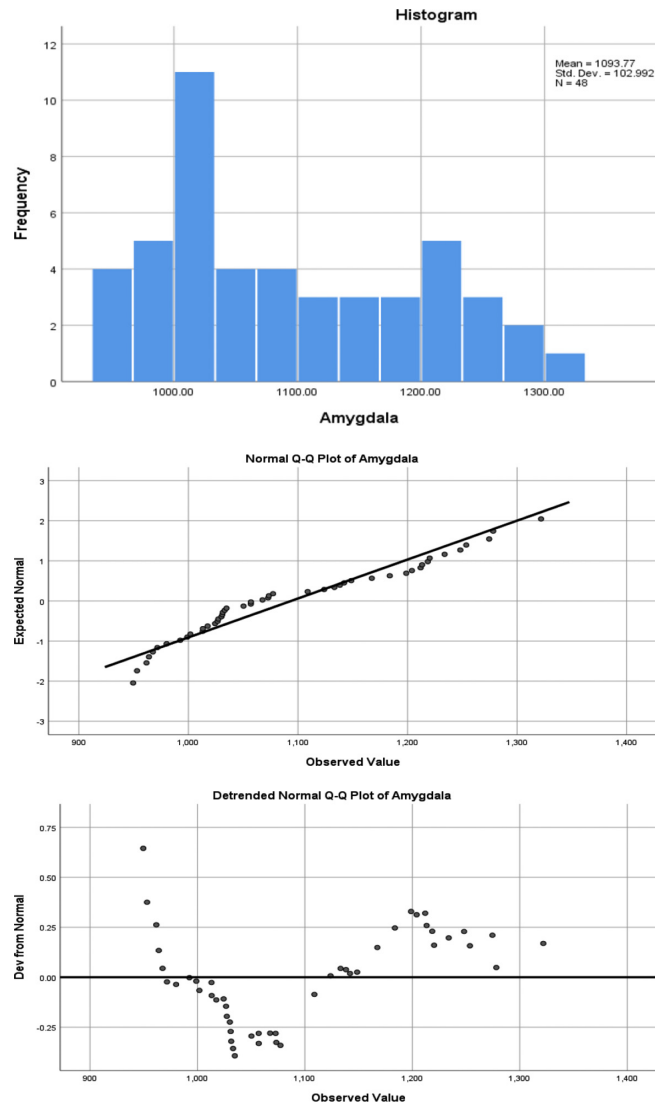




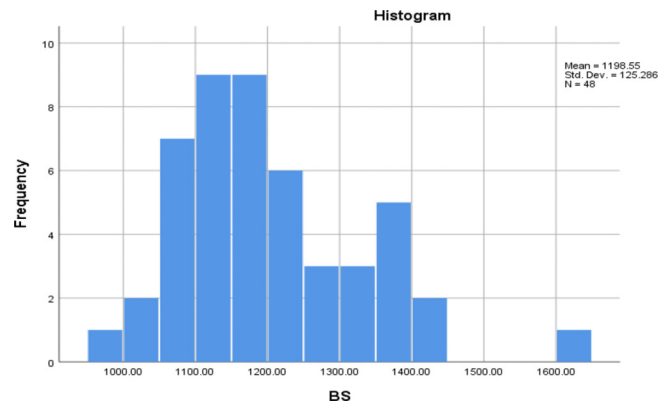
Hippocampus (HC) ADC values (mm^2/s)



Amygdala ADC values (mm²/s)



Brainstem (BS) ADC values (mm²/s)



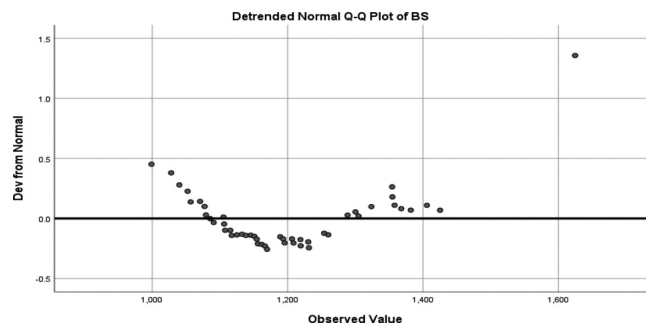
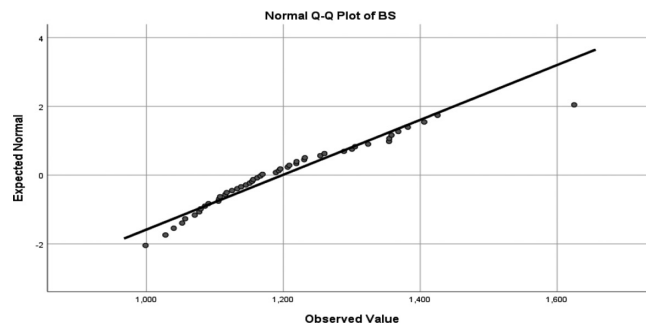


Table S1 Correlation between PVS score and ADC values using Spearman's rank correlation test

PVS score/ADC values	Midbrain	Basal ganglia	Centrum semiovale
Thalamus			
Coefficient	-0.070	-0.124	-0.341
Sig. (2-tailed)	0.631	0.396	0.017
N	48	48	48
Caudate			
Coefficient	0.109	0.131	0.012
Sig. (2-tailed)	0.458	0.369	0.934
N	48	48	48
Putamen			
Coefficient	-0.026	0.212	-0.227
Sig. (2-tailed)	0.862	0.145	0.116
N	48	48	48
Globus Pallidus			
Coefficient	-0.316	0.058	0.036
Sig. (2-tailed)	0.027	0.690	0.807
N	48	48	48
Basal ganglia			
Coefficient	0.227	0.015	-0.077
Sig. (2-tailed)	0.117	0.921	0.599
N	48	48	48
Hippocampus			
Coefficient	-0.035	0.044	-0.110
Sig. (2-tailed)	0.811	0.765	0.453
N	48	48	48
Amygdala			
Coefficient	0.016	0.007	0.126
Sig. (2-tailed)	0.913	0.960	0.388
N	48	48	48