### Supplementary Table 2. Partial Correlation Results between Cognition Tests and the Regional dPVS Volume

| NIH Toolbox Cognition Battery* | BGDpVS Coefficient† | p value | Frontal WMdPVS Coefficient† | p value | Parietal WMdPVS Coefficient† | p value | Temporal WMdPVS Coefficient† | p value | Occipital WMdPVS Coefficient† | p value |
|-------------------------------|----------------------|---------|-----------------------------|---------|-------------------------------|---------|-------------------------------|---------|-------------------------------|---------|
| Executive function/cognitive flexibility |                      |         |                             |         |                               |         |                               |         |                               |         |
| Dimensional change card sort test | 0.033                | 0.391   | -0.025                      | 0.523   | -0.027                        | 0.493   | -0.046                        | 0.242   | -0.045                        | 0.251   |
| Executive function/inhibitory control and attention |                      |         |                             |         |                               |         |                               |         |                               |         |
| Flanker inhibitory control and attention test | 0.010                | 0.804   | -0.009                      | 0.822   | -0.019                        | 0.626   | -0.010                        | 0.801   | -0.018                        | 0.651   |
| Processing speed |                      |         |                             |         |                               |         |                               |         |                               |         |
| Pattern completion processing speed test | 0.033                | 0.391   | 0.009                       | 0.820   | -0.013                        | 0.732   | -0.042                        | 0.277   | -0.049                        | 0.210   |
| Working memory |                      |         |                             |         |                               |         |                               |         |                               |         |
| List sorting test | 0.010                | 0.804   | 0.012                       | 0.749   | 0.024                         | 0.533   | -0.020                        | 0.603   | -0.009                        | 0.815   |
| Episodic memory |                      |         |                             |         |                               |         |                               |         |                               |         |
| Picture sequence memory test | 0.022                | 0.565   | 0.029                       | 0.453   | 0.026                         | 0.509   | -0.010                        | 0.798   | 0.013                         | 0.735   |
| Language/vocabulary comprehension |                      |         |                             |         |                               |         |                               |         |                               |         |
| Picture vocabulary test | 0.002                | 0.960   | 0.006                       | 0.885   | 0.019                         | 0.626   | -0.031                        | 0.420   | -0.039                        | 0.318   |
| Language/reading decoding |                      |         |                             |         |                               |         |                               |         |                               |         |
| Oral reading recognition | 0.036                | 0.355   | 0.031                       | 0.431   | 0.038                         | 0.330   | -0.036                        | 0.350   | -0.021                        | 0.591   |

BGdPVS, dilated perivascular space in the basal ganglia; WMdPVS, dilated perivascular space in the white matter.

*Unadjusted scale scores; †Age-, sex-, and relevant regional volume-adjusted Spearman correlation coefficients.