

**Supplementary Table:** Results following exclusion of participants with glaucoma. Regression coefficients are presented per standard deviation (SD) change in HRT RNFL thickness, with cognitive scores as the dependent variables.

|                      | Adjusted for disc area |                |                  | Adjusted for disc area & age |                |              | Adjusted for disc area, age & other covariables** |                |              |
|----------------------|------------------------|----------------|------------------|------------------------------|----------------|--------------|---|----------------|--------------|
|                      | $\beta$                | 95% CI         | P-value          | $\beta$                      | 95% CI         | P-value      | $\beta$   | 95% CI         | P-value      |
| <b>MMSE</b>          | 0.11                   | (0.06, 0.15)   | <b>&lt;0.001</b> | 0.06                         | (0.02, 0.10)   | <b>0.008</b> | 0.05  | (0.01, 0.09)   | <b>0.013</b> |
| <b>Animal number</b> | 0.43                   | (0.25, 0.60)   | <b>&lt;0.001</b> | 0.18                         | (0.01, 0.35)   | <b>0.038</b> | 0.11  | (-0.05, 0.28)  | 0.18         |
| <b>PW accuracy</b>   | 0.32                   | (0.16, 0.49)   | <b>&lt;0.001</b> | 0.06                         | (-0.10, 0.22)  | 0.47         | 0.00  | (-0.16, 0.16)  | 0.99         |
| <b>HVLT</b>          | 0.54                   | (0.40, 0.68)   | <b>&lt;0.001</b> | 0.23                         | (0.10, 0.37)   | <b>0.001</b> | 0.13  | (-0.00, 0.26)  | 0.056        |
| <b>NART*</b>         | -0.51                  | (-0.78, -0.25) | <b>&lt;0.001</b> | -0.44                        | (-0.71, -0.17) | <b>0.001</b> | -0.24   | (-0.46, -0.02) | <b>0.036</b> |
| <b>Log PAL*</b>      | -0.07                  | (-0.10, -0.05) | <b>&lt;0.001</b> | -0.02                        | (-0.05, 0.00)  | 0.08         | -0.01   | (-0.03, 0.01)  | 0.41         |

SF-MMSE – short-form Mini-Mental State Examination; PW-accuracy – Ps and Ws accuracy; HVLT – Hopkins Verbal Learning Test; NART - National Adult Reading Test; PAL - Paired Associates Learning Test.

\* a lower score indicates a better cognitive performance for these measures.

\*\* other covariables adjusted for were sex, education level, social class, visual acuity of the better eye, axial length and history of cataract surgery.