**Supplementary Table 1. Participant demographics**

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| --- | --- | --- | --- | --- | --- |
| **Characteristics** | **Total** | **CN** | **aMCI** | **AD dementia** | ***p*-value** |
| N | 136 | 51 | 54 | 31 |  |
| Age, mean (SD), y | 136 | 71.5 (5.4) | 71.4 (8.4) | 65.2 (8.7) | < 0.001 |
| Education, mean (SD), y | 132 | 10.1 (4.9) | 9.9 (5.0) | 6.4 (3.5) | 0.001 |
| Female sex, No.(%) | 136 | 27 (52.9) | 22 (40.7) | 21 (67.7) | 0.055 |
| K-MMSE score, points | 131 | 27.0 (2.2) | 25.2 (2.9) | 18.9 (4.3) | < 0.001 |
| APOE ε4 carrier, No. (%) | 133 | 19 (37.3) | 28 (51.8) | 24 (77.4) | 0.004 |
| **CSF biomarkers, mean (SD), pg/mL** | | | | | |
| NFL concentrations, (pg/mL) | 136 | 806.1 (380.5) | 851.8 (376.5) | 970.4 (360.9) | 0.080 |
| Aβ1-42 concentrations, (pg/mL) | 136 | 830.9 (336.2) | 666.2 (279.6) | 399.1 (135.1) | < 0.001 |
| t-Tau concentrations, (pg/mL) | 136 | 260.8 (107.2) | 366.2 (213.2) | 522.8 (217.1) | < 0.001 |
| p-Tau181 concentrations, (pg/mL) | 136 | 45.2 (15.6) | 58.5 (27.0) | 74.4 (27.0) | < 0.001 |
| **Plasma biomarkers, mean (SD), pg/ml** | | | | | |
| NFL concentrations, (pg/mL) | 136 | 18.6 (6.5) | 20.7 (9.4) | 21.8 (6.6) | 0.050 |
| Aβ1-42 concentrations, (pg/mL) | 136 | 11.5 (3.7) | 10.7 (3.3) | 8.2 (2.4) | < 0.001 |
| **Combination biomarkers, ratio** | | | | | |
| CSF\_NFL/Aβ1-42 ratio | 136 | 1.25 (0.98) | 1.66 (1.24) | 2.62 (1.18) | < 0.001 |
| Plasma\_NFL/Aβ1-42 ratio | 136 | 1.89 (1.10) | 2.05 (1.02) | 2.92 (1.20) | < 0.001 |
| **Neuroimaging data** | | | | | |
| Aβ-PET (SUVR score) | 135 | 1.1061 (0.15) | 1.1710 (0.23) | 1.3886 (0.11) | < 0.001 |
| Hippocampal volume/ICV | 134 | 0.0028 (0.00032) | 0.0025 (0.00040) | 0.0021 (0.00038) | < 0.001 |
| Entorhinal cortex (mm) | 134 | 3.3826 (0.30533) | 3.1671 (0.43704) | 2.9403 (0.46155) | < 0.001 |

Data are presented as means (SD, standard deviation), numbers, or % unless indicated otherwise. Abbreviations: K-MMSE, Korean Mini-Mental State Examination; ICV, intracranial volume; SUVR, standardized uptake value ratio; CSF, cerebrospinal fluid; Aβ1-42, amyloid beta1-42; t-Tau, total Tau protein, p-Tau, phosphorylated Tau protein; NFL, neurofilament light chain; CN, cognitively normal; aMCI, amnestic mild cognitive impairment; AD, Alzheimer’s disease. Differences were analyzed using ANCOVA adjusted for sex and age.