Supplementary Online Content


eFigure 1. Cognition and Imaging by Amyloid Status

eFigure 2. Cognitive Change by Amyloid and *APOE*

eFigure 3. Imaging Changes by Amyloid and *APOE*

eFigure 4. Cognition and Imaging by Amyloid and *APOE*

eTable. Baseline Characteristics of Study Participants by MCI/Dementia Conversion

This supplementary material has been provided by the authors to give readers additional information about their work.
eFigure 1. Cognition and Imaging by Amyloid Status
Estimated mean cognitive and imaging measures from linear mixed-effects regression models over time by PiB status.
eFigure 2. Cognitive Change by Amyloid and APOE
Estimated mean annual change (95% confidence interval) in cognitive measures from linear mixed-effects regression models by PiB status and ApoE4 genotype.
eFigure 3. Imaging Changes by Amyloid and APOE

A. PIB

\[ \begin{align*}
\text{ε4–} & : & \text{PIB}^+ & & \text{PIB}^- \\
& : & \text{PIB}^+ & & \text{PIB}^- \\
\text{ε4+} & : & \text{PIB}^+ & & \text{PIB}^- \\
\end{align*} \]

PIB vs. PIB–
Difference (95% CI) P-values

ε4–: 2.15 (1.47, 2.82) ApoE: 0.21
PIB: <0.001
Int: <0.001

ε4+: 0.12 (-0.82, 1.06)

FDG

\[ \begin{align*}
\text{ε4–} & : & \text{PIB}^+ & & \text{PIB}^- \\
& : & \text{PIB}^+ & & \text{PIB}^- \\
\text{ε4+} & : & \text{PIB}^+ & & \text{PIB}^- \\
\end{align*} \]

PIB vs. PIB–
Difference (95% CI) P-values

ε4–: -0.13 (-0.89, 0.63) ApoE: 0.28
PIB: 0.86
Int: 0.40

ε4+: 0.44 (-0.66, 1.54)

B. HP Volume

\[ \begin{align*}
\text{ε4–} & : & \text{PIB}^+ & & \text{PIB}^- \\
& : & \text{PIB}^+ & & \text{PIB}^- \\
\text{ε4+} & : & \text{PIB}^+ & & \text{PIB}^- \\
\end{align*} \]

PIB vs. PIB–
Difference (95% CI) P-values

ε4–: -0.02 (-0.05, 0.01) ApoE: 0.23
PIB: 0.005
Int: 0.03

ε4+: -0.07 (-0.11, -0.03)

C. Vent Volume

\[ \begin{align*}
\text{ε4–} & : & \text{PIB}^+ & & \text{PIB}^- \\
& : & \text{PIB}^+ & & \text{PIB}^- \\
\text{ε4+} & : & \text{PIB}^+ & & \text{PIB}^- \\
\end{align*} \]

PIB vs. PIB–
Difference (95% CI) P-values

ε4–: 0.75 (0.24, 1.26) ApoE: 0.26
PIB: 0.002
Int: 0.49

ε4+: 0.45 (-0.24, 1.14)
Estimated mean annual percent change (panel A) or annual change in cm³ (panels B and C) in imaging measures with 95% confidence interval from linear mixed-effects regression models by PiB status and ApoE4 genotype.
eFigure 4. Cognition and Imaging by Amyloid and APOE
Estimated mean cognitive and imaging measures from linear mixed-effects regression models over time by PiB status and ApoE4 genotype.
**eTable.** Baseline Characteristics of Study Participants by MCI/Dementia Conversion

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Remained Cognitively Normal (n=475)</th>
<th>Progressed to MCI/dementia (n=88)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years, median (IQR)</td>
<td>78 (74, 82)</td>
<td>80 (77, 86)</td>
</tr>
<tr>
<td>Male, no. (%)</td>
<td>263 (55)</td>
<td>49 (56)</td>
</tr>
<tr>
<td>ApoE ε4 carrier, no (%)</td>
<td>111 (23)</td>
<td>28 (32)</td>
</tr>
<tr>
<td>Education, years, median (IQR)</td>
<td>14 (12, 16)</td>
<td>13 (12, 16)</td>
</tr>
<tr>
<td>Short Test of Mental Status Score, median (IQR)</td>
<td>36 (34, 37)</td>
<td>33 (32, 35)</td>
</tr>
<tr>
<td>Cognitive z-scores, median (IQR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>0.76 (0.11, 1.32)</td>
<td>-0.34 (-0.99, 0.13)</td>
</tr>
<tr>
<td>Memory</td>
<td>0.71 (0.03, 1.47)</td>
<td>-0.71 (-1.05, 0.01)</td>
</tr>
<tr>
<td>Language</td>
<td>0.49 (-0.10, 1.05)</td>
<td>-0.08 (-0.83, 0.39)</td>
</tr>
<tr>
<td>Attention</td>
<td>0.62 (-0.09, 1.14)</td>
<td>-0.27 (-0.85, 0.15)</td>
</tr>
<tr>
<td>Visuospatial</td>
<td>0.58 (-0.04, 1.22)</td>
<td>-0.13 (-0.80, 0.74)</td>
</tr>
<tr>
<td>PiB ratio, SUVR, median (IQR)</td>
<td>1.37 (1.30, 1.56)</td>
<td>1.49 (1.35, 1.94)</td>
</tr>
<tr>
<td>FDG ratio, SUVR, median (IQR)</td>
<td>1.42 (1.32, 1.51)</td>
<td>1.33 (1.23, 1.45)</td>
</tr>
<tr>
<td>Hippocampal volume, cm³, median (IQR)</td>
<td>7.2 (6.7, 7.7)</td>
<td>6.4 (5.8, 7.0)</td>
</tr>
</tbody>
</table>