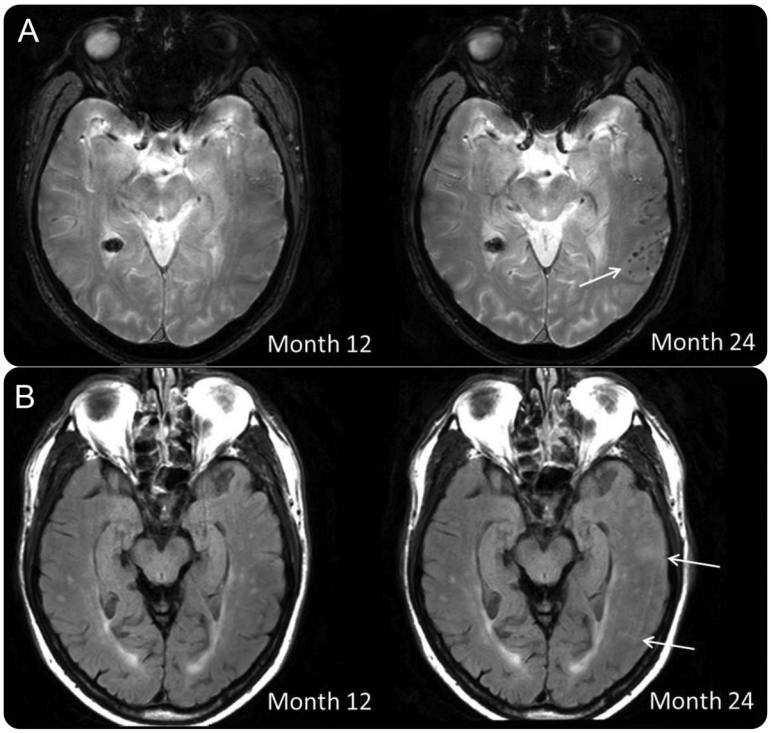
Spontaneous amyloid-related imaging abnormalities in a cognitively normal adult

Figure 1 MRI of amyloid-related imaging abnormalities with microhemorrhages and amyloid-related imaging abnormalities with sulcal effusions and edema



Amyloid-related imaging abnormalities with microhemorrhages (arrow) on T2* gradient recalled echo (A), amyloid-related imaging abnormalities with sulcal effusions and edema (arrows) on fluid-attenuated inversion recovery MRI (B) at month 24, which were not present on the 12-month MRI.

An 81-year-old cognitively normal man (*APOE* ε3/ε3) without risk factors had amyloid-related imaging abnormalities with sulcal effusions and edema (ARIA-E), siderosis, and microhemorrhages (ARIA-H) on MRI (figure 1).[1] He was identified from 1,006 participants followed with 3,385 MRIs in 2010–2013 in Alzheimer's Disease Neuroimaging Initiative (ADNI) 2/ADNI Grand Opportunities. Amyloid standard uptake value ratio on PET was 1.85 (positive) (figure 2). ARIA-E and associated ARIA-H can be observed in cognitively normal elderly without the *APOE* ε4 risk allele, who have no prior microhemorrhages, and who are not receiving amyloid-modifying treatments. Focal amyloid deposits around the region of ARIA-H suggest that cerebral amyloid angiopathy may be responsible for the occurrence of ARIA in this case.[2]

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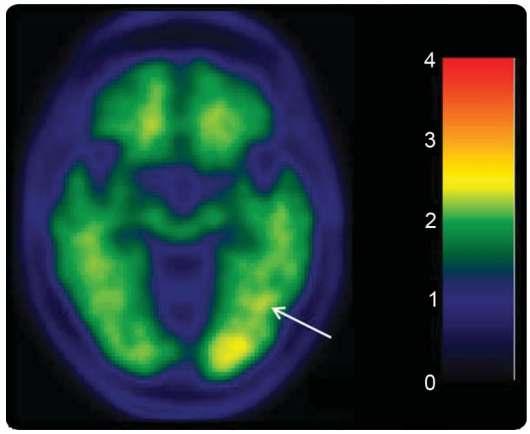
Figure 2 Amyloid PET of a patient with spontaneous amyloid-related imaging abnormalities with microhemorrhages and amyloid-related imaging abnormalities with sulcal effusions and edema



C-11 Pittsburgh compound B PET (month 24) shows focal amyloid deposits in the left temporal and occipital lobe. Arrow indicates increased uptake in the location of the microhemorrhages.

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