

Figure legends

Fig. 1.

A: Automated voxel-by-voxel Z-score analysis by comparison of brain perfusion single-photon emission computed tomography (SPECT) images of a 75-year-old man with probable dementia with Lewy bodies and a Mini-Mental State Examination score of 19. The mean and standard deviation of SPECT images of healthy volunteers after normalization to global mean cerebral blood flow values are shown. Color-scaled Z-score maps (range: 2.0–6.0), with an extent threshold of 300 voxels, are displayed by overlaying on trans-axial sections and surface rendering of the spatially normalized magnetic resonance imaging template. Red lines enclose a volume-of-interest (VOI) with the most significant decline in regional cerebral blood flow in very early Alzheimer's disease compared to healthy volunteers by Statistical Parametric Mapping 2 analysis. Severity, extent, and ratio were 1.79, 36.01%, and 6.04, respectively. VOI-1: occipital, enclosed with a light blue line; VOI-2: occipital cingulate gyrus, enclosed with a red line.

B: The cingulate island sign score (CIScore) is obtained by dividing the total Z-score on the low blood flow side in VOI-2 (occipital cingulate gyrus, enclosed with a red line) by the total Z-score on the low blood flow side in VOI-1 (occipital, enclosed with a light blue line).

Fig. 2.

Progression of the onset of dementia in patients with idiopathic rapid eye movement sleep behavior disorder (Kaplan-Meier analysis).

SVA, specific volume of interest analysis.