Reduced α4β2*-Nicotinic Acetylcholine Receptor Binding and Its Relationship to Mild Cognitive and Depressive Symptoms in Parkinson Disease

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eFigure 1. Statistical parametric mapping analysis of 2-[18F]fluoro-3-[2S]-2-azetidinylmethoxy)-pyridine (2-FA) and positron emission tomography. In glass brain images (3 views), black-colored clusters label the reduced 2-FA binding potential (2-FA BP), a measure of α4β2* nicotinic acetylcholine receptor availability, in patients with Parkinson disease (PD) compared with healthy volunteers (HVs). The contrasts and design matrix for analysis of covariance with 2 variates containing 5 columns are given (A). Exemplary transaxial sections and z coordinates of the stereotactic space of a standard T1-weighted magnetic resonance image are shown (B). The yellow clusters label the significant decrease of 2-FA BP in subcortical and cortical regions in patients with PD compared with HVs (P < .001 uncorrected and extent threshold of k = 5 voxels; B and supplementary Table 2 [the supplementary tables are available on the authors’ Web site at http://nukmed.uniklinikum-leipzig.de/download/YOA90008_Meyer_etal_Suppl.pdf]).
eFigure 2. Percentage decline of cerebral 2-[[18F]fluoro-3-(2[S]-2-azetidinylmethoxy)-pyridine binding potential (2-FA BP), a measure of α4β2* nicotinic acetylcholine receptor availability, in 3 subgroups of patients with Parkinson disease compared with healthy volunteers in the right (A) and left brain (B and supplementary Table 1). ACC indicates anterior cingulate cortex; PCC, posterior cingulate cortex.