Supplementary Material

Heterogeneity of Amyloid Binding in Cognitively Impaired Patients Consecutively Recruited from a Memory Clinic: Evaluating the Utility of Quantitative ¹⁸F-Flutemetamol PET-CT in Discrimination of Mild Cognitive Impairment from Alzheimer's Disease and Other Dementias

		MCI		AD		OD	
		amyloid positive ^{a,b,c}	amyloid negative ^{f,1,2,3,4}	Non-typical	typical	amyloid positive ^{d,e}	amyloid negative
Global binding	composite SUVR	0.69 (0.12)	0.42 (0.04)	0.75 (0.09)	0.76 (0.10)	0.70 (0.12)	0.45 (0.06)
Regional binding	Prefrontal R	0.67 (0.12)	0.39 (0.05)	0.72 (0.10)	0.73 (0.11)	0.67 (0.14)	0.42 (0.06)
	Prefrontal L	0.69 (0.13)	0.39 (0.05)	0.71 (0.09)	0.74 (0.12)	0.69 (0.14)	0.41 (0.08)
	Anterior Cingulate R	0.72 (0.15)	0.42 (0.08)	0.73 (0.17)	0.75 (0.13)	0.70 (0.09)	0.46 (0.07)
	Anterior Cingulate L	0.73 (0.15)	0.45 (0.08)	0.75 (0.13)	0.77 (0.14)	0.73 (0.09)	0.47 (0.09)
	Precuneus/posterior cingulate R	0.74 (0.12)	0.43 (0.04)	0.81 (0.09)	0.80 (0.10)	0.76 (0.18)	0.46 (0.05)
	Precuneus/posterior cingulate L	0.76 (0.12)	0.47 (0.04)	0.82 (0.09)	0.83 (0.1)1	0.78 (0.15)	0.49 (0.05)
	Parietal R	0.72 (0.11)	0.43 (0.05)	0.74 (0.10)	0.77 (0.12)	0.73 (0.14)	0.47 (0.07)
	Parietal L	0.67 (0.12)	0.41 (0.05)	0.74 (0.09)	0.74 (0.10)	0.70 (0.14)	0.43 (0.10)
	Temporal Lateral R	0.73 (0.11)	0.47 (0.04)	0.78 (0.10)	0.79 (0.11)	0.72 (0.12)	0.49 (0.07)
	Temporal Lateral L	0.69 (0.14)	0.45 (0.05)	0.77 (0.11)	0.77 (0.11)	0.70 (0.11)	0.47 (0.06)
	Occipital R	0.67 (0.10)	0.48 (0.41)	0.76 (0.16)	0.72 (0.12)	0.69 (0.12)	0.52 (0.06)
	Occipital L	0.65 (0.11)	0.50 (0.03)	0.74 (0.12)	0.73 (0.11)	0.68 (0.10)	0.51 (0.06)

Supplementary Table 1. The mean values of global and regional binding according to subtypes (mean with SD)

Sensorimotor R	0.60 (0.08)	0.42 (0.06)	0.64 (0.09)	0.63 (0.09)	0.61 (0.11)	0.45 (0.06)
Sensorimotor L	0.58 (0.09)	0.42 (0.06)	0.64 (0.09)	0.64 (0.09)	0.61 (0.11)	0.43 (0.09)
Temporal Mesial R	0.54 (0.06)	0.45 (0.05)	0.52 (0.05)	0.52 (0.07)	0.52 (0.06)	0.46 (0.06)
Temporal Mesial L	0.53 (0.08)	0.44 (0.05)	0.52 (0.07)	0.51 (0.07)	0.53 (0.06)	0.45 (0.06)

a,b,c no significant difference of the composite and regional SUVR of amyloid-positive MCI from typical AD, non-typical AD, and amyloid-positive OD

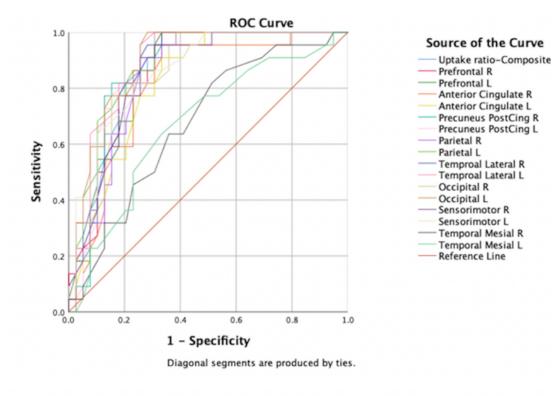
d,e no significant difference of the composite and regional SUVR of amyloid-positive OD from typical and non-typical AD

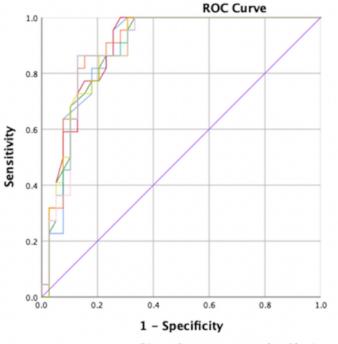
^f no significant difference of the composite and regional SUVR of amyloid-negative MCI from amyloid-negative OD

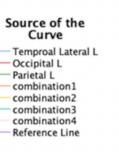
1.2.3.4 significant difference of the composite and regional SUVR of amyloid-negative MCI from typical and non-typical AD, amyloid-positive MCI, and amyloid-

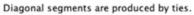
positive OD

Supplementary Figure 1. ROC curve based on 16 ROIs (upper) and ROC curve based on 3 ROIs and 4 combinations (lower) between MCI and AD group.

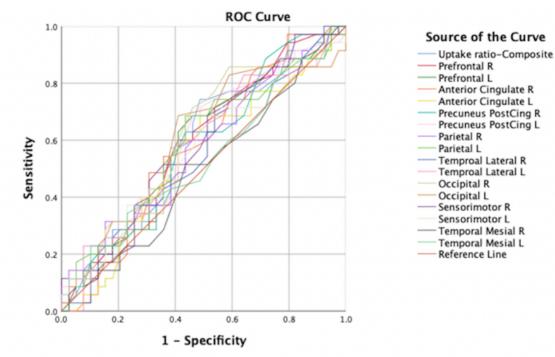




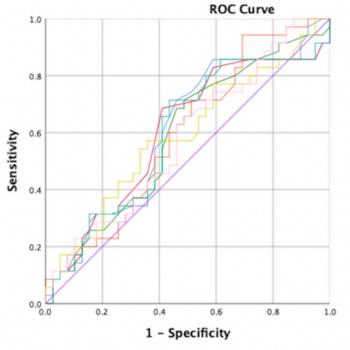


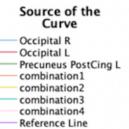


Supplementary Figure 2. ROC curve based on 16 ROIs (upper) and ROC curve based on 3 ROIs and 4 combinations (lower) between MCI and OD group.



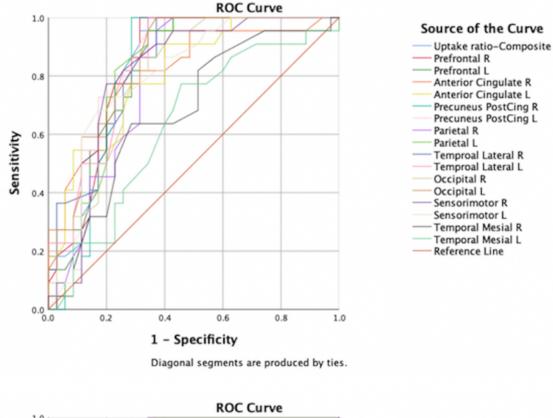
Diagonal segments are produced by ties.

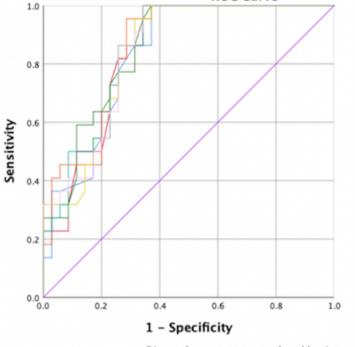


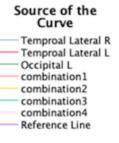


Diagonal segments are produced by ties.

Supplementary Figure 3. ROC curve based on 16 ROIs (upper) and ROC curve based on 3 ROIs and 4 combinations (lower) between OD and AD group.







Diagonal segments are produced by ties.

Supplementary Figure 4. Topological distribution comparison of amyloid burden between AD and amyloid-positive MCI group based on SPM two t-test at uncorrected p value<0.001.

