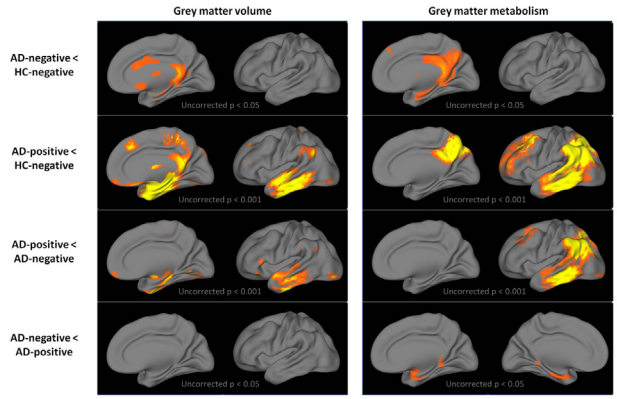
Table
Demographic characteristics of the samples

	AD-negative	AD-positive	HC-negative
N (males)	9 (5)	26 (12)	30 (14)
Age (mean±SD)	70.6±14.7	72.5±10.9	71.1±11.6
Education (mean±SD)	12.1±5.8	12.5±2.8	14.1±3.7
MMSE (mean±SD)	24.6±3	22.8±4.4	28.8±1
ApoE4 (n / n available)	14%	81%	14%



IC-P-010 CLINICALLY DIAGNOSED PROBABLE AD CASES WITH A NEGATIVE AMYLOID PET SCAN: CLINICAL FINDINGS

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Background: 10%-20% of patients clinically diagnosed with Alzheimer's disease (AD) in expert centers do not show high tracer retention on amyloid PET. The present study investigates the clinical and demographic features and longitudinal trajectory of this intriguing subgroup. **Methods:** 41 amyloid PET-negative patients carrying a pre-PET diagnosis of AD from 4 centers (Amsterdam, Melbourne, San Francisco, and Caen) were included in this study. Amyloid status was determined by visual reading and confirmed by quantitative analyses. Detailed clinical histories of all patients was collected, including the clinical diagnosis before and after results of the PET scan were known by the clinician, and at long term follow-up, when available. Patients were then classified according to their clinical phenotype as either typical (memory predominant), atypical (predominant language, visual or frontal symptoms), or aclassical (nonspecific presentation), both before and after the PET scan. **Results:** There were 17 typical, 15 atypical, and 8 aclassical AD-negative cases plus one unclassified. Subgroups didn't differ in age, education or MMSE except that typical cases had higher MMSE than atypical ones (p=0.03, see Table). After the PET scan, clinicians altered the diagnosis in 22 of the 34 cases in which they received results. Diagnosis changed to frontotemporal dementia (FTD, n=8), corticobasal syndrome (CBS, n=4), dementia with Lewy bodies (DLB, n=3), epilepsy-depression (n=1), primary progressive aphasia (n=1), non-fluent aphasia (n=1) and unknown diseases (n=4, see detailed table). Clinicians did not change their clinical diagnosis in 60% of typical patients, but nearly always changed the diagnosis in atypical and aclassical cases (83%, p=0.03). Typical cases were most often reclassified as FTD, atypical as FTD or CBS, and aclassical as DLB or unknown. **Conclusions:** Negative amyloid PET scans impacted clinical diagnosis, particularly in patients with non-amnestic clinical presentations. Amyloid PET negative AD likely represents a mixed population of initially misdiagnosed neurodegenerative or non-degenerative conditions, AD-mimics (e.g. hippocampal sclerosis or argyrophilic grain disease), and false negative scans.

Table
Demographic and clinical characteristics of the amyloid-negative AD patients by clinical phenotype subgroups

	All	Typical	Atypical	Aclassical
n	41	17	15	8
Age (mean±SD)	67.2±9.2	68.7±11.5	65.5±7.1	68.1±8.1
Education (mean±SD)	12.3±4.7	12.7±5.6	16.5±4.8	13.7±5.7
MMSE (mean±SD)	22.6±4.8	24.3±2.7	20.9±5.3	23.5±4.9
ApoE4 (n / n available)	5/27	3/14	1/6	1/6
Diagnosis change (n / n available)	22/34	6/15	10/12	5/6
Diagnosis when changed		FTD (n=4) DLB (n=1) Epilepsy-depression (n=1)	FTD (n=4) CBS (n=4) Primary progressive aphasia, no specific subtype (n=1) Non-fluent aphasia (n=1)	DLB (n=2) Unknown (n=3)

IC-P-011 COMPARING LIBERAL AND CONSERVATIVE THRESHOLDS FOR AMYLOID PET POSITIVITY IN AUTOPSY-PROVEN CASES

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