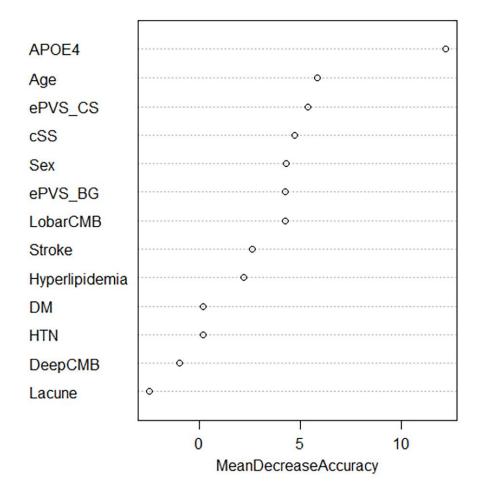
**Supplementary Fig. 1** Variable importance plot was used to determine which variables make a significant contribution on RF analysis. Thirteen variables were sorted from top to bottom, from the most important to the least important. Variable importance was measured by the mean decrease in accuracy.



	Low degree of PVS-CS	High degree of PVS-CS	P value
n (%)	29 (37.7%)	48 (62.3%)	
Age, years, mean (SD)	73.3 (7.8)	76.6 (7.3)	0.069
Sex, female, n (%)	20 (69.0%)	24 (50.0%)	0.103
Hypertension, n (%)	13 (44.8%)	23 (47.9%)	0.792
Diabetes mellitus, n (%)	5 (17.2%)	11 (22.9%)	0.552
Hyperlipidemia, n (%)	2 (6.9%)	9 (18.8%)	0.192
Prior stroke, n (%)	1 (3.4%)	3 (6.3%)	1.000
APOE ε4 presence, n (%)	13 (44.8%)	20 (41.7%)	0.974
AD, n (%)	15 (51.7%)	32 (66.7%)	0.193
MMSE, median (IQR)	25.0 (21.0-26.5)	22.5 (19.0-25.0)	0.071
Lacunes, median (IQR)	0 (0-0)	0 (0-0.8)	0.495
cSS presence, n (%)	2 (6.9%)	4 (8.3%)	1.000
LobarCMB, median (IQR)	0 (0-0)	0 (0-2)	0.014
DeepCMB, median (IQR)	0 (0-0)	0 (0-0)	0.792
WMH presence, n (%)	13 (44.8%)	34 (70.8%)	0.023

Supplementary Table 1. Comparisons between high and low degree of MRI-visible PVS in the centrum semiovale groups within  $\beta$ -amyloid positive patients

SD = standard deviation, IQR = interquartile range, APOE = aolipoprotein E; PVS-CS= MRI-visible perivascular space in centrum semi-ovale; AD = Alzheimer's disease; MMSE = mini-mental state examination; CMB = cerebral microbleed; cSS = cortical superficial siderosis; WMH = white matter hyperintensities

	Low degree of PVS-CS	High degree of PVS-CS	P value
n (%)	43 (64.2%)	24 (35.8%)	
Age, years, mean (SD)	68.3 (10.0)	76.5 (9.8)	0.002
Sex, female, n (%)	30 (69.8%)	14 (59.3%)	0.345
Hypertension, n (%)	12 (27.9%)	13 (54.2%)	0.033
Diabetes mellitus, n (%)	6 (14.0%)	4 (16.7%)	0.737
Hyperlipidemia, n (%)	6 (14.0%)	3 (12.5%)	1.000
Prior stroke, n (%)	3 (7.0%)	4 (16.7%)	0.239
APOE ε4 presence, n (%)	9 (22.0%)	4 (18.2%)	1.000
AD, n (%)	8 (18.6%)	11 (45.8%)	0.018
MMSE, median (IQR)	27.0 (24.0-29.0)	24.5 (21.3-27.5)	0.018
Lacunes, median (IQR)	0 (0-0)	0 (0-0.8)	0.431
cSS presence, n (%)	0 (0%)	1 (4.2%)	0.358
LobarCMB, median (IQR)	0 (0-0)	0 (0-1)	0.007
DeepCMB, median (IQR)	0 (0-0)	0 (0-0.8)	0.507
WMH presence, n (%)	13 (30.2%)	14 (58.3%)	0.025

Supplementary Table 2. Comparisons between high and low degree of MRI-visible PVS in the centrum semiovale groups within  $\beta$ -amyloid negative patients

SD = standard deviation, IQR = interquartile range, APOE = aolipoprotein E; PVS-CS= MRI-visible perivascular space in centrum semi-ovale; AD = Alzheimer's disease; MMSE = mini-mental state examination; CMB = cerebral microbleed; cSS = cortical superficial siderosis; WMH = white matter hyperintensities