

**Supplementary table 1. Comparison of demographic, clinical and neuroradiological characteristics between the cerebral small vessel disease patients with Fazekas score  $\geq 5$  and Fazekas score  $\leq 4$  in Patients without GGC repeat expansion.**

Variables	Patients with Fazekas score $\geq 5$ (n=189)	Patients with Fazekas score $\leq 4$ (n=616)	P value
Age of onset (year)	65.47 $\pm$ 10.24	59.44 $\pm$ 10.08	< 0.001*
Sex (male)	109 (57.7%)	318 (51.6%)	0.145
Muscle weakness	69 (36.5%)	95 (15.4%)	< 0.001*
Sensory disturbance	13 (6.9%)	73 (11.9%)	0.053
Headache	11 (5.8%)	106 (17.2%)	< 0.001*
Dizzy	52 (27.5%)	290 (47.1%)	< 0.001*
Vision blurred	5 (2.6%)	6 (1.0%)	0.083
Speech impairment	20 (10.6%)	40 (6.5%)	0.061
Stroke	140 (74.1%)	149 (24.2%)	< 0.001*
Hypertension	161 (85.2%)	382 (62.0%)	< 0.001*
Diabetes Mellitus	52 (27.5%)	106 (17.2%)	0.002*
Hyperlipemia	27 (14.3%)	39 (6.3%)	< 0.001*
Hyperhomocysteinemia	64 (33.9%)	165 (26.8%)	0.059
Coronary artery disease	13 (6.9%)	72 (11.7%)	0.06
Family history/ Stroke	25 (13.2%)	112 (18.2%)	0.113
White matter hyperintensity	189 (100.0%)	616 (100.0%)	NA
Lacunar Infarcts	156 (82.5%)	428 (69.5%)	< 0.001*
Enlarged Perivascular Spaces	124 (65.6%)	382 (62.0%)	0.371
Brain Atrophy	23 (12.2%)	52 (8.4%)	0.123

NA, not available. Data represents the mean  $\pm$  SD or the number (%) of subjects. For the measurement data that conform to the normal distribution, use the independent sample t test; for the measurement data that does not conform to the normal distribution, use the Mann-Whitney U test; For qualitative dichotomous variables, used Pearson's chi-square test.  $P < 0.05$  was considered statistically significant, \* represents significant.