

Supplementary Table 1. Management of the quality scoring criteria of the cohort subscale of the Newcastle-Ottawa assessment scale for the purposes of the current study*

	Selection				Comparability		Outcome		
	Representativeness of the exposed cohort	Selection of the non-exposed cohort	Ascertainment of exposure	Exclusion of outcome presence at start of study	Comparability for age	Comparability for hypertension	Assessment of outcome	Length of follow-up	Adequacy of follow-up
Point awarded if...	General population-based study	Drawn from the same community as the exposed cohort	1. For LVH: method and criteria used are reported 2. For LVM(I): method and equa-tions used are reported	1. Cohort studies in which the outcome addressed is assessed at baseline and either subjects with the outcome are excluded from the study or the increment of the outcome is assessed 2. Cohort studies in which the outcome is "lacunar stroke" and subjects with stroke (self-reported, medical file or imaging ascertained) are excluded at baseline	Any age adjustment	1. In hypertensive patient-based studies: adjustment for hypertension duration 2. In all other studies: any of the adjustments; SBP, DBP, anti-hypertensive drug usage, duration of hypertension	1. For dichotomous, scaled and continuous outcomes: criteria/method of quantification used are reported 2. For the outcome "lacunar stroke": relevant clinical presentation and criteria used for lacunar stroke identification are reported	Cohort studies with ≥36 mo mean follow-up length	Cohort studies with ≥80% of participants examined at baseline not lost to follow-up at end-point
Point not awarded if...	High-risk population-based study (hypertensive, stroke patients etc.)	1. Drawn from a different source 2. No description of the derivation of the non-exposed cohort	1. Self-reported 2. Method and/or criteria used not reported	1. Cross-sectional studies 2. Cohort studies which do not fulfil the above criteria	No age adjustment	No hypertension adjustment or does not fulfil above criteria	1. Self-reported 2. Method of assessment not reported 3. Defining lacunes in the context of silent brain infarcts including not only lacunes but also some (<20%) larger cortical infarcts	1. Cross-sectional studies 2. Cohort studies with <36 mo mean follow-up length	1. Cross-sectional studies 2. Cohort studies with <80% of baseline participants following-up at end-point or follow-up % not reported

LVH, left ventricular hypertrophy; LVM(I): left ventricular mass (index); SBP, systolic blood pressure; DBP, diastolic blood pressure.

*The only case-control study included in our review (Pirinen et al.,⁷⁴ 2017) was also graded according to this scale.

Supplementary Table 2. Number of articles excluded after screening the full-text by reason

Reasons for exclusion	No. of articles
Cardiac parameters were measured (ECG, TTE) but LVH or LVM(I) were not assessed	22
Article not presenting relevant quantitative data- author contacted but did not reply	9
Stroke studies where the comparison group consisted of patients with non-lacunar stroke	6
Article not presenting relevant quantitative data- author was contacted but data was unavailable	6
Study population not eligible (miscellaneous neurologic diagnoses, dementia, primary cardiomyopathies, etc.)	5
Articles exploring silent infarcts not including predominantly lacunes (silent cortical infarcts >20%)	4
All participants in the study fulfilling diagnostic criteria for LVH	4
Outcome assessed was not relevant (i.e., brain atrophy)	2
Studies with inappropriate comparison group (i.e., comparisons between subjects with different CMBs subtypes)	1
Study protocol: study not yet published	1
Total articles excluded	60

ECG, electrocardiogram; TTE, transthoracic echocardiogram; LVH, left ventricular hypertrophy; LVM(I), left ventricular mass (index); CMB, cerebral microbleed.