



P115 Does Post-stroke White Coat Hypertension/Effect (WCH/E) Require Intensive Blood Pressure Management?

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ABSTRACT

Objective: International guidelines advocate conservative management of post-stroke white coat hypertension. The aims of this study were to investigate; i) does WCH/E result in increased stroke risk? and ii) is WCH/E associated with surrogate markers of cardiovascular risk?

Methods: The Arterial Stiffness In Lacunar Stroke and TIA (ASIST) study recruited 96 patients, aged over 40 years old, with a confirmed diagnosis of transient ischaemic attack (TIA) or lacunar stroke in the preceding 14 days. Patients were grouped by BP phenotypes. Thirty-four patients were excluded ($n = 6$ declined ABPM, $n = 3$ masked hypertension, $n = 25$ sustained hypertension). Thirty-two patients with normal BP (clinic BP $<140/90$ mmHg and day-time ABPM $<135/85$ mmHg), and 30 patients with WCH/E (clinic BP $>140/90$ mmHg and day-time ABPM $<135/85$ mmHg) were recruited. Other surrogate markers measured were; Central aortic BP (SphygoCor, AtCor Medical), QKD₁₀₀₋₆₀ interval and nocturnal dipping status (Diasys Integra II, Novocor).

Results: Compared to the normotensive cohort, patients with WCH/E were older, had a higher body mass index (BMI) and a larger proportion of patients were on anti-hypertensive medication. Both central systolic (145 ± 13 vs 118 ± 8 , $p < 0.001$) and diastolic BP (82 ± 8 vs 76 ± 7 , $p = 0.004$) were higher in WCH/E. The WCH/E cohort also had more lacunar strokes ($p = 0.039$) (Table 1).

Conclusion: In this population of post-stroke patients, WCH/E was associated with higher prevalence of lacunar stroke. These individuals also had higher central pressures despite more patients being on anti-hypertensive treatment, suggesting that post-stroke WCH/E should be managed more aggressively.

Table 1

	Normotension (N = 32)	WCH/E (N = 30)	Significance
Male, n (%)	21 (66)	22 (73)	0.511
Age (years)	69.9 \pm 11.5	75.7 \pm 9.3	0.033
BMI (kg/m ²)	25 \pm 4	28 \pm 4	0.014
Anti-hypertensive use, n (%)	19 (59)	23 (77)	0.146
Clinic SBP (mmHg)	125 \pm 9	155 \pm 13	<0.001
Clinic DBP (mmHg)	75 \pm 7	81 \pm 8	0.003
Daytime systolic ABPM (mmHg)	114 \pm 10	121 \pm 10	0.007
Daytime diastolic ABPM (mmHg)	73 \pm 7	72 \pm 7	0.586
Central SBP (mmHg)	118 \pm 8	145 \pm 13	<0.001
Central DBP (mmHg)	76 \pm 7	82 \pm 8	0.004
QKD ₁₀₀₋₆₀ interval (msec)	208 \pm 18	197 \pm 26	0.114
Non-dipper, n (%)	16 (57)	14 (50)	0.592
Stroke type			
TIA, n (%)	25 (78)	16 (53)	
Lacunar, n (%)	7 (22)	14 (47)	0.039

Data expressed as mean \pm standard deviation or number (percentage). Significance determined by *t*-test. Chi-squared used for: anti-hypertensive use, male gender, dipping status and stroke type.

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