



# 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), QKD<sub>100-60</sub> 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 ( $145 \pm 13$  vs  $118 \pm 8$ ,  $p < 0.001$ ) and diastolic BP ( $82 \pm 8$  vs  $76 \pm 7$ ,  $p = 0.004$ ) 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 ± 11.5	75.7 ± 9.3	0.033
BMI (kg/m <sup>2</sup> )	25 ± 4	28 ± 4	0.014
Anti-hypertensive use, n (%)	19 (59)	23 (77)	0.146
Clinic SBP (mmHg)	125 ± 9	155 ± 13	<0.001
Clinic DBP (mmHg)	75 ± 7	81 ± 8	0.003
Daytime systolic ABPM (mmHg)	114 ± 10	121 ± 10	0.007
Daytime diastolic ABPM (mmHg)	73 ± 7	72 ± 7	0.586
Central SBP (mmHg)	118 ± 8	145 ± 13	<0.001
Central DBP (mmHg)	76 ± 7	82 ± 8	0.004
QKD <sub>100-60</sub> interval (msec)	208 ± 18	197 ± 26	0.114
Non-dipper, n (%)	16 (57)	14 (50)	0.592
Stroke type			
TIA, n (%)	25 (78)	16 (53)	0.039
Lacunar, n (%)	7 (22)	14 (47)	

Data expressed as mean ± 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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