**INFLUENCE OF SLEEP-TIME BLOOD PRESSURE IN THE PROGNOSTIC VALUE OF ISOLATED-OFFICE AND MASKED HYPERTENSION**

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Objectives: Elevated sleep-time blood pressure (BP) is a better predictor of cardiovascular (CVD) risk than the awake or 24h BP means. However, discrepancies in the diagnosis of hypertension between clinic and ambulatory measurements (isolated-office and masked hypertension) are frequently defined by comparing clinic with only awake BP. We evaluated the impact of sleep-time BP in the prognostic value of isolated-office and masked hypertension.

Methods: We prospectively studied 3344 subjects (1718 men/1626 women), 52.6+/-14.5 years of age, during a median 5.6 years follow-up. BP was measured for 48h at baseline, and again annually or more frequently (quarterly) after adjustments in treatment.

Results: Out-of-office (masked and sustained) hypertension was associated with higher CVD risk than normotension and isolated-office hypertension (P<0.001) only when those conditions were defined on the basis of asleep, but not on awake or 24h BP mean. Using only awake BP for classification, 58.2% of subjects with masked hypertension were mistakenly classified as normotensive, and 26.3% of subjects with sustained hypertension were erroneously identified as isolated-office hypertensive. Cox proportional-hazard analysis using the awake and asleep pressure means as potential predictors of CVD risk and adjusted for significant confounders revealed that only asleep mean was an independent significant predictor of outcome.

Conclusions: Subjects with elevated sleep-time BP are at high CVD risk, independent of either clinic or ambulatory awake BP measurements. Sleep-time BP determined by ABPM, should thus be used for proper identification of out-of-office hypertension, a condition associated with markedly increased CVD risk compared to out-of-office (ABPM-determined) normotension.