

Article of Interest

Myers, G et al. Prevalence of White Coat Effect in Treated Hypertensive Patients in the Community. *American Journal of Hypertension*. 1995. (Click to Access)

Context and Study Objective

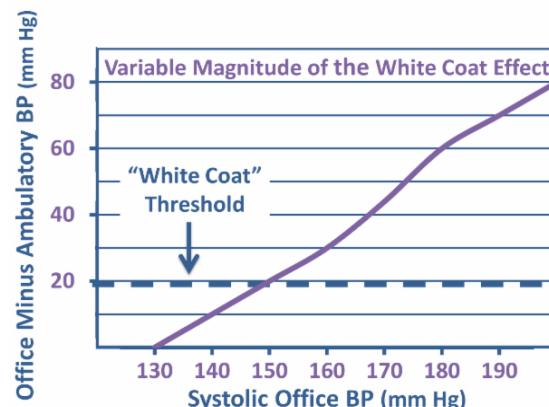
While clinicians are peripherally aware of the "White Coat Syndrome," understanding overlooked aspects of the phenomenon can avoid overtreatment. In this paper, Myers documents just how pronounced the white coat effect can be among treated hypertensives. Of note, even those with documented hypertension are often labeled as suffering from white coat if clinic blood pressure (BP) greatly exceed out-of-office readings.

Design, Methods, and Participants

Treated hypertensives without known White Coat Syndrome were recruited from internal medicine practices. Only those on stable anti-hypertensives were eligible. With a mercury sphygmomanometer, physicians measured office pressures during routine visits. Instruction on proper technique was not provided. Patient then underwent 24 hour ambulatory blood BP monitoring. Office readings 20 mm Hg systolic or 10 mm Hg diastolic greater than the mean 24 hour ambulatory BP indicated the presence of a white coat effect.

Results

- Study characteristics: 147 of 287 eligible patients participated. Mean age 64. 60% women. Co-morbid conditions and medication use not reported.
- Results: Mean office reading: 146/87 mm Hg. Mean 24 hour ambulatory reading: 132/78 mm Hg. The white coat phenomenon was present in 60% of the cohort.
- White coat frequently resulted in elevations of 25-45 mm Hg systolic or 15-20 mm Hg diastolic when compared to 24 hour ambulatory BP values.
- Figure: The white coat effect lead to office readings as high as 180-190 mm Hg systolic; corresponding 24hr ambulatory readings were 120-140 mm Hg.



Clinical Perspective

- While the white coat effect is commonly defined as office pressures 20/10 mm Hg greater than out-of-office readings, this paper illustrates that the effect can be much more pronounced. For example, clinic readings resulted in some controlled hypertensives being labeled as suffering from stage 2 ($\geq 160/100$ mm Hg) hypertension.
- As such, among patients who don't carry the diagnosis of hypertension and have no evidence of end organ damage (renal, cardiac, cerebrovascular complications), one can't assume an elevated office reading is simply "too high" to be attributed to the White Coat Syndrome. Instead, the diagnosis should be confirmed with home BP or 24 hour ambulatory monitoring.
- Among those with documented hypertension, out-of-office readings should also be obtained to document uncontrolled BP prior to prescribing additional agents.
- Limitations: If study physicians were educated on the appropriate technique for measuring BP, the white coat effect would have been minimized. However, this study highlights real-world practice patterns; moreover, institution of and ongoing adherence to correct technique remains difficult.
- N.B.: Thanks to Dr. Jan Basile for his assistance with this issue.