

Pulse Pressure Helps Identify White Coat Hypertension

BY ALICE GOODMAN

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NEW ORLEANS – Pulse pressure measured by a physician may help discriminate between patients with white coat hypertension and true hypertension, according to a South Korean study.

About a third of the more than 1,000 patients in the study who were receiving ongoing antihypertensive treatment actually had white coat hypertension (WCH), suggesting that the costs and potential side effects of drug therapy could have been avoided in these patients, said Dr. Young Keun Ahn of the Chonnam National University Hospital, Gwangju, South Korea, and associates.

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Major Finding: Pulse pressure was correlated with a systolic white coat effect ($r = 0.063$, P less than .001) and a diastolic white coat effect (0.037, P less than .001).

Data Source: The study enrolled 1,087 patients undergoing treatment for chronic hypertension in outpatient academic hospital settings.

Disclosures: The study was funded by the Korean Institute of Medicine; the Korea Healthcare Technology R&D Project; the Korean Ministry of Health, Welfare, & Family Affairs; and the Republic of Korea.

Twenty-four hour ambulatory blood pressure monitoring or self-blood pressure monitoring can diagnose white coat hypertension, he said, but pulse pressure is simpler to use and is suitable for patients without aortic valvular insufficiency or aortic disease, he added.

Dr. Ahn and his colleagues found that pulse pressure as measured by a physician was more significantly related to WCH than was systolic blood pressure, a value that had been shown in earlier studies to be helpful in identifying patients with WCH.

The study enrolled 1,087 patients being treated for chronic hypertension in outpatient academic hospitals settings. Patients were trained to self-measure their blood pressure twice a day and record it every morning and evening for 2 weeks.

Thirty-one percent of patients were found to have WCH, which was defined as a difference above 20 mm Hg in systole or 10 mm Hg in diastole.

Pulse pressure was positively correlated with a systolic white coat effect ($r = 0.063$, P less than .001) and diastolic white coat effect (0.037, P less than .001).

No association was found between a white coat effect and age or gender. However, patients with a family history of premature heart disease were more likely to experience white coat hypertension. Patients with diabetes and smokers were less likely to have it.

Dr. William Zoghbi noted that “if a

stressful encounter like seeing a doctor can cause white coat hypertension, then perhaps this response would be replicated in other stressful situations. It would be useful to monitor these patients to determine if they are at risk for ongoing hypertension.”

Dr. Zoghbi is the chief of cardiovascular imaging at Methodist DeBakey Heart and Vascular Center in Houston. ■



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