Ambulatory Versus Home Versus Clinic Blood Pressure

To the Editor:

There is growing evidence that blood pressure (BP) monitoring and home BP monitoring are useful for predicting hypertensive target organ damage and the risk of cardio- and cerebrovascular events. Ambulatory BP monitoring and home BP monitoring have been reported to be better predictors than clinic BP in many population studies. In a recent issue of Hypertension, Hara et al showed that ambulatory BP, especially nighttime BP, was better correlated with silent cerebrovascular disease than home BP and that home BP was better associated with carotid atherosclerosis than ambulatory BP. However, they also found that clinic BP was not a good predictor of these measures of target organ damage.

In their report, Hara et al compared clinic, home, and ambulatory BP in association with brain infarcts and carotid atherosclerosis. However, Hara et al did not show the intervals between measurements. The assessment of target organ damage is not affected by the time of day when measurement was taken, but BP readings vary according to conditions such as seasonal differences. The timing of home BP and ambulatory BP measurements should be almost the same when they are compared. In our recent article, home BP values in the second and third of 3 consecutive home BP readings were 133±16/77±9 mm Hg, and the average of awake ambulatory BP was 131±14/79±10 mm Hg. Home BP was measured for 8 weeks, and ambulatory BP monitoring was performed in the middle of the study period (fourth week). However, the data of Hara et al (Table 1 of their report) show that daytime systolic BP were 7 and 6 mm Hg higher in the silent cerebrovascular lesion (−) and silent cerebrovascular lesion (+) groups, respectively, than in the home systolic BP group. Those authors did not discuss why the BP levels were so different between the ambulatory BP monitoring and home BP monitoring in their study. In clinical practice, when a patient-obtained ambulatory BP and home BP differ from each other, we might consider which of these 2 measures to use. If the timing of these 2 measurements differs, it is very hard to consider the data clinically useful. In addition, it is not clear how to interpret the different BP readings. Another issue we have with that study is, what were the results when the subjects were limited to hypertensive patients under treatment?

Disclosures

None.

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