Out-of-Office Blood Pressure Control Among Treated Subjects

To the Editor:

We read with great interest the article by Banegas et al,1 dealing with the control of office blood pressure (BP) and daytime ambulatory BP in 12,897 treated patients with hypertension in primary care settings in Spain. They found that office BP was adequately controlled (<140/90 mm Hg) in only 23.6% of their patients. In contrast, daytime ambulatory BP was adequately controlled (<135/85 mm Hg) in 51.6% of patients.

We previously conducted a comparable survey in primary care settings in Japan, which included 3,400 treated patients with hypertension, that assessed self-measured BP at home (home BP) as the out-of-office BP: the Japan Home Versus Office Blood Pressure Measurement Evaluation Study.2 We found that, compared with office BP, morning home BP was rather poorly controlled: 42.0% of patients had controlled office BP (<140/90 mm Hg), and 34.8% of patients had controlled morning home BP (<135/85 mm Hg).

The discrepancy between the 2 studies could be partly attributed to the difference in the study methods and the time that the BP measurements were taken, that is, average BP obtained during the daytime in 1 day and the average of multiple BP measurements obtained in the early morning for 2 weeks. We reported previously that a high morning home BP was associated with a higher risk of stroke, especially in patients treated with antihypertensive medication.3 A high morning BP is accompanied by sustained elevation of nocturnal BP (nondipper and inverted dipper) and a morning BP surge. This suggests that, in subjects taking antihypertensive medication, an insufficient duration of antihypertensive drug action only partly mediates a nondipping pattern of circadian BP variation.4 It is essential to evaluate patients' cardiovascular risk based on their nocturnal BP and the presence of a morning BP surge.5

The other possible reason for the discrepancy between the 2 studies in the out-of-office BP control status might be the difference in the proportions of patients who took antihypertensive drugs in the morning alone (80.2% in Spain and 68.0% in Japan).1,2 It has been shown that even the newer, long-acting antihypertensive drugs do not necessarily lower BP throughout the entire day. Because most patients in the Spanish study were given antihypertensive drugs only in the morning, it is possible that the effect did not persist into the night and that the control of nocturnal BP might have been less sufficient than that of daytime BP. Therefore, we would be interested in knowing the degree of nocturnal BP control that was present in their study.

Disclosures

None.


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