Importance of ambulatory blood pressure in hypertension management

To the Editor: In their article, Head and colleagues stated that "white coat hypertension carries minimal actual CVD [cardiovascular disease] risk".[1] However, a failure to identify white coat hypertension, and to misdiagnose it as true hypertension, can lead to inappropriate prescription of antihypertensive medications, with associated financial costs and adverse effects such as falls and acute kidney injury, which are unrelated to CVD risk.

Although the published evidence relating to falls in this context is controversial, there is evidence to suggest that medication-induced hypotension may lead to preventable falls among elderly patients.[2-4] The same is frequently true for acute kidney injury as a consequence of diuretic-induced dehydration and/or medication-induced hypotension leading to renal hypoperfusion.[5]

In practice, greater use of ambulatory blood pressure monitoring frequently helps to identify patients with white coat hypertension, thus avoiding inappropriate prescription of antihypertensive medications and averting the considerable associated costs and morbidity.

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In reply: The cardiovascular risk associated with white coat hypertension itself is quite separate from the risk of treating white coat hypertension inappropriately.

We agree that there are considerable issues associated with treating elderly patients for hypertension and possibly inappropriately treating white coat hypertensive patients. However, although white coat hypertension is more common among elderly patients, the condition needs to be considered in a broader context of absolute risk where age is the most important determinant.[1]

Irrespective of its cause, the presence of orthostatic hypotension creates not only a greater risk of falling, but is also associated with higher all-cause mortality, and an increased risk of coronary artery disease mortality and stroke.[2] While ambulatory blood pressure monitoring is not recommended to detect orthostatic hypotension, we nevertheless support its use to correctly determine blood pressure in white coat hypertensive patients, together with continuing home blood pressure measurement, particularly in the elderly who are at greater cardiovascular risk.

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