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LETTER TO THE EDITOR

Hypertension management in older adults

Editor,

Hypertension is common chronic disease and its prevalence increases with age. While better control of blood pressure (BP) significantly reduces the incidence of cardiovascular and neurological events, there is still uncertainty about the optimal target of BP in older patients. This issue is especially important in light of the dramatic growing of elderly population which is estimated to reach 17% of the world's population by 2050.[1]

In the past, it is widely believed that the relationship between BP and mortality and morbidity in the elderly shows a J-curve (or U-shape) phenomenon, which simply means that both high and low BP are associated with increased risk of rehospitalization, cardiovascular and neurological complications, and death. This understanding was clearly demonstrated in the previous guidelines including National Institute for Health and Care Excellence (2011), European Society of Hypertension and European Society of Cardiology (2013), Eighth Joint National Committee (2014), and Canadian Hypertension Education Program (2016) which all recommended to initiate pharmacologic treatment in octogenarians and nonagenarian when systolic BP (SBP) is >160 mmHg and to target SBP to <150 mmHg.

In 2016, the SBP Intervention Trial (SPRINT) was published to compare the benefit of intensive BP control versus standard BP control in patients older than 75 years with SBP >160 mmHg. The authors found that treating to SBP target of <120 mmHg compared with SBP target of <140 mmHg reduced the incidence of cardiovascular disease by 33% and total mortality by 32%. Moreover, the overall serious side effects, the number of injurious falls, and the prevalence of orthostatic hypotension were comparable between the two groups of BP. It should be noted, however, that the trial excluded important groups such as nursing home residents, elderly with Type 2 diabetes, previous stroke, or other comorbidities, and those with low-standing BP of <110 mmHg.[2]

Depending on the results of SPRINT and other studies, new BP management guidelines were released in 2017 by many committees including the American Heart Association/American College of Cardiology, American Geriatrics Society, and American Society of Hypertension. These guidelines recommended to start BP management in elderly patients when SBP is >130 mmHg and to target a SBP of <130 mmHg.[3]

Although the available evidence support the current guidelines, it is very important to recognize the difficulty in achieving this BP target in all elderly patients due to the high rate of frailty, polypharmacy, falls, and other comorbidities. Thus, BP should be carefully monitored in the elderly during initiation of two or more antihypertensive medications, especially those with frequent falls and multiple comorbidities. Moreover, more caution should be applied to those with high baseline BP as targeting a lower SBP may result in increased risk of death.[4] Finally, the guidelines recommended to use clinical judgment, patient preference, and team-based approach to assess the risk/benefit of management, especially in older patients with a high burden of comorbidity and/or limited life expectancy.[3]

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Conflicts of interest

There are no conflicts of interest.

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