

Management of Elderly Hypertension Beyond Target Blood Pressure

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Who should be treated with antihypertensive drugs? Based on comparison of achieved blood pressure (BP) between the placebo and active-treated groups in the randomized placebo-controlled trials such as SHEP, Syst-Eur, and HYVET, patients with systolic BP ≥ 150 mmHg would be treated actively. However, based on entry criteria of these trials and a cohort study investigated impact of frailty/disability on the association between mortality and BP, newly initiation of antihypertensive treatment should be considered individually for frail or ill elderly patients. What are the goals of antihypertensive treatment for the elderly? It is often required to give priority to QOL or ADL but not life-expectancies in very elderly patients. Non-pharmacological therapy should be positively performed, but strategies should be individually selected, considering the patient's QOL. Fall and fracture are well known risk of disability with loss of independence. It has been reported that the risk of fall and fracture increased when antihypertensive drug therapy is newly started for very elderly patients. Although HYVET showed lower incidence of fracture in the active treatment group compared with the placebo treatment group in the very elderly hypertensive patients, subjects of HYVET were excluded severe orthostatic hypotension. Clinically important issue is not only reducing BP but also precaution for fall/fracture. Physicians should ask all elderly patients or their caregivers about falls in the last year, and watch the patient rise from a chair and walk for screening of high risk at fall. Evaluation of risk at osteoporosis and appropriate prevention of fracture are also important. BP should be gradually reduced regardless of the presence or absence of orthostatic hypotension. Large BP fluctuation and isolated systolic hypertension are signs of advanced atherosclerosis which may lead to decreases in the vital organ perfusion and an impairment of autoregulation of vital organ perfusion. SPRINT showed significant lower incidence of fatal and nonfatal major cardiovascular events and death from any cause even in the very elderly subgroup, although it showed significantly higher rates of some adverse events in the intensive-treatment group (targeting BP <120 mmHg) compared with standard-treatment group (targeting BP <140 mmHg). Individualized treatment of hypertension should be considered from the point of preventive effects of cardiovascular diseases, harmful risk of adverse events and effects on QOL based on not only evidence-based medicine but also individual physiology-based medicine in the very elderly and frail hypertensive patients.