APPLICATION AND POTENTIAL CLINICAL EFFECTS OF NEW HYPERTENSION GUIDELINES ON INCIDENT CARDIOVASCULAR EVENTS

Poster Contributions
Poster Hall B1
Saturday, March 14, 2015, 10:00 a.m.-10:45 a.m.

Session Title: Medical Management of Hypertension
Abstract Category: 22. Prevention: Hypertension
Presentation Number: 1108-127

Authors: Duk-Woo Park, Min Jung Ko, Female, Chan Mi Park, Female, Yun Jung Kim, Female, Shin Hee Kang, Female, Division of Cardiology, University of Ulsan College of Medicine, Asan Medical Center, Seoul, South Korea

Background: The new 2014 guidelines of the Eighth Joint National Committee (JNC 8) for the treatment of hypertension (HTN) propose less restrictive blood pressure (BP) threshold for treatment for old adults aged 60 years or older and for those with diabetes and chronic kidney disease (CKD).

Methods: Using data from the Korean National Health and Nutrition Examination Survey of 2008 to 2012 (n=30,697), we estimated the number of persons for whom HTN treatment would be recommended (i.e., eligible persons) under the new JNC-8 guideline, as compared with JNC-7 guidelines, and extrapolated the results to 35.8 million Koreans adults. Using external validation cohort of the 2003 National Health Examination (n=116,767), we determined clinical effects of discordant recommendations by the two guidelines on major cardiovascular events (cardiovascular death, myocardial infarction, or stroke).

Results: Among 35.8 million adults, as compared with the JNC-7 guidelines, the new JNC-8 guideline would decrease the number of adults with treatment-eligible HTN from 10.1 million (28.2%) to 9.3 million (25.9%). This decrease would occur among older adults (≥ 60 years) (2.6 million to 2.4 million), adults with CKD (0.6 million to 0.5 million), and adults with diabetes (2.2 million to 1.7 million). In external validation cohort, as compared to adults without HTN, those who were recommended by the JNC-7 guideline and those who were recommended by the JNC-8 guideline had a significantly higher adjusted risk of major cardiovascular events (hazard ratio [HR], 1.75; 95% confidence interval [CI], 1.52-2.01 and HR 1.88; 95% CI 1.62-2.19). However, adults who were newly not recommended for HTN treatment by the JNC-8 guideline did not have an increased risk (HR 1.16; 95% CI 0.86-1.57).

Conclusion: Compared with the JNC 7 guideline, the new HTN guidelines would decrease the number of adults who would be eligible for HTN treatment and would newly recommend avoidance of HTN treatment for those with a relatively lower risk of events.