

Incident CKD according to isolated diastolic hypertension as Defined by the 2017 ACC/AHA Guideline

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Background/Aims: The present study aimed to estimate the prevalence of chronic kidney disease (CKD) according to isolated diastolic hypertension (IDH) according to the 2017 American College of Cardiology (ACC)/American Heart Association (AHA) blood pressure (BP) guideline definitions using the Korean Genome and Epidemiology Study (KOGES) cohort.

Methods: This retrospective cohort study included 8509 Korean adults without CKD at baseline. Participants were categorized as having normotension, IDH, isolated systolic hypertension (ISH), and systolic diastolic hypertension (SDH). The primary outcome was incident CKD.

Results: Over a mean follow-up period of 8.5 years, 77 of 2251 (3.5%) patients in the IDH group and 108 of 3165 (3.4%) patients in the normotension group developed incident CKD. Compared with normotension, IDH was not associated with incident CKD (hazard ratio [HR], 0.977; 95% confidence interval [CI]: 0.723-1.311, $P=0.876$) in multivariate analysis. Both ISH (HR: 1.570, 95% CI 1.043-2.363, $P=0.030$) and SDH (HR: 1.542, 95% CI 1.219-1.950, $P<0.001$) increased the incidence of CKD.

Conclusions: In this analysis of Korean adults, the estimated prevalence of IDH was approximately 26.1%, as defined by the 2017 ACC/AHA BP guidelines. However, IDH was not significantly associated with an increased risk of CKD.

