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한국인에서 우연성 고혈압 발생에 대한 단순 예측 점수에 관한 연구

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A Simple Prediction Score for Incident Hypertension in a Korean Population

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Objectives: Given the world-wide burden of hypertension, we aimed to develop a simple prediction model for incident hypertension that could help to prevent or delay the onset of hypertension for some patients who did not experience hypertension yet.

Methods: The Korean Genome and Epidemiology Study was used for the model development (n=3,533) and internal validation (n=1,698). Hypertension was defined when either the systolic and diastolic blood pressures (SBP, DBP) were 140 and 90 mmHg or higher or being treated with antihypertensive medications.

Results: SBP, age and DBP, parental hypertension, obesity, high density lipoprotein (HDL), current smoking and fasting glucose level were significantly associated with incident hypertension. Integer scores were assigned to variables based on the magnitude of associations SBP (-2 to 5), age and DBP (-2 to 5), parental hypertension (2), obesity (2), low HDL (2), current smoking (2) and high fasting glucose (2). Based on the Youden index, 5 or greater defined a high risk with 76% sensitivity, 72% specificity, 27% positive predictive value and 96% negative predictive value.

Conclusions: This prediction algorithm, weighted towards common modifiable variables, showed good performance characteristics in a Korean population.

Key Words: 우연성 고혈압, 선별검사, 공중보건
Incident hypertension, Screening, Public health

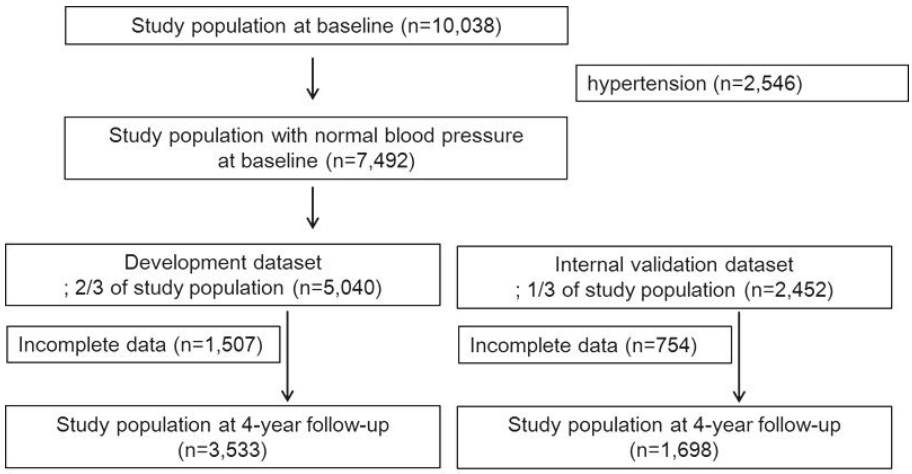

Fig. 1. Flow chart of the structure of the study.