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Parents' high blood pressure associated with increased risk of hypertension throughout life in men

CHICAGO · Individuals who have one or two parents with hypertension appear to have a significantly increased risk of developing elevated blood pressure throughout their adult lives, according to a report in the March 24 issue of Archives of Internal Medicine, one of the JAMA/Archives journals.

Hypertension, or high blood pressure, often clusters in families, according to background information in the article. Researchers estimate that between 35 percent and 65 percent of high blood pressure is heritable.

Nae-Yuh Wang, Ph.D., and colleagues at the Johns Hopkins University, Baltimore, assessed hypertension in 1,160 men who first filled out study questionnaires in 1947, when they were medical students. At that time, the participants underwent medical examinations and reported their medical history, health habits and dietary habits. Each year for 54 years of follow-up, they completed annual questionnaires regarding their blood pressure and the diagnosis and treatment of hypertension in themselves and their parents.

At the beginning of the study, 264 (23 percent) of the medical students reported at least one parent with hypertension, including 20 with both parents who had hypertension. During follow-up, 583 new cases of parental hypertension occurred, so that 701 (60 percent) of the group had at least one parent with high blood pressure and 166 (14 percent) had two. Men with one or two parents with hypertension had higher average systolic (top number) and diastolic (bottom number) blood pressure at the beginning of the study and were also more likely to develop hypertension at some point during adulthood than those whose parents never developed hypertension.

“Men with both parents with hypertension or men with one parent who was hypertensive before the age of 55 years had a much higher risk of developing hypertension, especially at a younger age,” the authors write. Early-onset hypertension in both parents was associated with a

6.2-fold higher risk of hypertension at any point in adulthood and a 20-fold higher risk of developing hypertension by age 35.

Our findings emphasize the importance of asking patients about parental hypertension to identify those who are at high risk of developing hypertension, especially at a young age, for both population-based and individual-level interventions, the authors conclude. They also underscore the importance of primary prevention and blood-pressure monitoring early in life in men with parental hypertension, especially those who have a parent with early-onset hypertension.

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