Systolic blood pressure variability linked to mortality, morbidity

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(HealthDay)—Systolic blood pressure variability (SBPV) is associated

with mortality, coronary heart disease (CHD), stroke, and end-stage renal disease (ESRD), according to a study published in the Sept. 27 issue of the *Journal of the American College of Cardiology*.

Elvira O. Gosmanova, M.D., from the Stratton Veterans Affairs Medical Center in Albany, N.Y., and colleagues examined the impact of increased visit-to-visit variability in a large cohort of U.S. veterans. Data were included for 2,865,157 patients with eight or more outpatient BP measurements. SBPV was measured and correlated with all-cause mortality, incident CHD, stroke, and ESRD.

The researchers found that higher intraindividual SBPV was seen in association with sociodemographic variables (older age, male sex, African-American race, divorced or widowed status), clinical characteristics (lower baseline estimated glomerular filtration rate, higher SBP, and diastolic BP), and comorbidities (presence of diabetes, hypertension, cardiovascular disease, and lung disease). For standard deviation quartile 2 through 4 versus the first quartile, the multivariable-adjusted hazard ratios associated with all-cause mortality, CHD, stroke, and ESRD were incrementally higher.

"Higher SBPV in individuals with and without hypertension was associated with increased risks of all-cause mortality, CHD, stroke, and ESRD," the authors write. "Further studies are needed to determine interventions that can lower SBPV and their impact on adverse health outcomes."

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