Changes in radial pulse during menopause may reflect CV risk

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(HealthDay)—Changes in the harmonics of the radial pulse wave during

menopause may reflect cardiovascular risk, according to a study presented at the American Heart Association Basic Cardiovascular Sciences 2019 Scientific Sessions, held from July 29 to Aug. 1 in Boston.

Chih-Yu Chen, M.D., from Taipei City Hospital in Taiwan, and colleagues assessed the effect of age, menopause, and body mass index on different hemodynamic parameters, including systolic blood pressure (SBP), diastolic blood pressure (DBP), and harmonics of radial pulse wave (12-second continuous radial pulse data) among 327 women (230 premenopausal and 97 postmenopausal) aged 20 to 87 years without cardiovascular history. Additionally, spectrum analysis of radial pressure wave was determined and transformed into five harmonic amplitudes (C1 to C5).

The researchers found that age was positively correlated with SBP but did not influence DBP. There were positive associations between body mass index and both SBP and DBP. Menopause had no significant effect on either SBP or DBP. Menopause had significant effects on C1 and C3, independent of age and body mass index. C1, which is associated with atherosclerosis, was an independent risk predictor for adverse cardiac events.

"Health care providers can measure a menopausal woman's radial pulse to see if the patient's C1 harmonic is affected," a coauthor said in a statement. "If it is, they can monitor a patient's situation more closely and take action to prevent cardiovascular disease from becoming more severe."

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More information: Press Release

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