Duration of diabetes, prediabetes linked to presence of CAC

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(HealthDay)—Diabetes and prediabetes duration are both independently

associated with the presence of coronary artery calcified plaque (CAC) and left ventricular dysfunction, according to a study published online Jan. 9 in *Diabetes Care*.

Jared P. Reis, Ph.D., from the National Heart, Lung, and Blood Institute in Bethesda, Md., and colleagues examined whether the durations of diabetes and prediabetes estimated during a 25-year period in early adulthood are independently associated with CAC. Data were included for 3,628 white and black adults aged 18 to 30 years without diabetes or prediabetes at baseline (1985 to 1986).

The researchers found that 12.7 and 53.8 percent of the participants developed diabetes and prediabetes, respectively, with an average duration of 10.7 and 9.5 years. The hazard ratio for the presence of CAC was 1.15 and 1.07 times higher for each five-years-longer duration of diabetes and prediabetes, respectively, after adjustment for sociodemographic characteristics and other cardiovascular risk factors and mutual adjustment for each other. There was a correlation for diabetes and prediabetes duration with worse subclinical systolic function and early diastolic relaxation. There was also a correlation for duration of diabetes with higher diastolic filling pressure.

"Durations of diabetes and prediabetes during adulthood are both independently associated with subclinical atherosclerosis and left ventricular systolic and diastolic dysfunction in middle age," the authors write.

More information: Abstract/Full Text (subscription or payment may be required)