Coronary CT angiography ups prediction of MACE in T2DM

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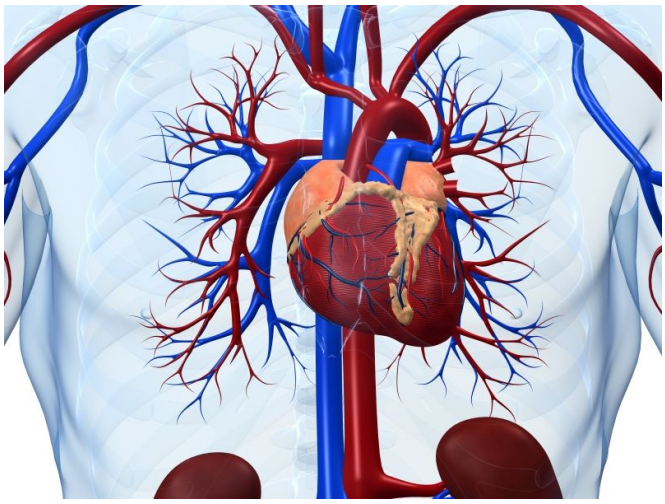

(HealthDay)—For asymptomatic patients with type 2 diabetes, the addition of coronary computed tomography angiography (CCTA)-detected obstructive coronary artery disease (CAD) improves prediction of major adverse cardiovascular events (MACE), according to a study published online June 29 in *Diabetes Care*.

Kwan Yong Lee, from the Catholic University of Korea in Seoul, and colleagues analyzed 933 patients with asymptomatic type 2 diabetes who underwent CCTA and assessed the extent and severity scores for CAD. During a mean follow-up period of 5.5 ± 2.1 years, the authors evaluated patients for the primary end point of MACE, including all-cause mortality, nonfatal myocardial infarction, and late coronary revascularization.

The researchers found that 94 patients with MACE exhibited obstructive CAD with significantly greater extent and higher severity scores. Obstructive CAD remained an independent predictor of MACE after adjustment for confounding risk factors (hazard ratio, 3.11). On addition of a finding of obstructive CAD using CCTA to traditional risk factors, there was significant improvement in the performance of a risk prediction model based on C-statistics (C-index, 0.788). This finding was further supported in integrated discrimination improvement (0.046) and net reclassification improvement analyses (0.55). The risk prediction power of the coronary artery calcium score remained unimproved (C-index, 0.740).

"Based on our data, the addition of CCTA-detected obstructive CAD to models that include traditional risk factors improves the predictions of MACE in asymptomatic patients with type 2 diabetes," the authors write.

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