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Two variants ID cardiovascular effect of intensive glycemic Tx

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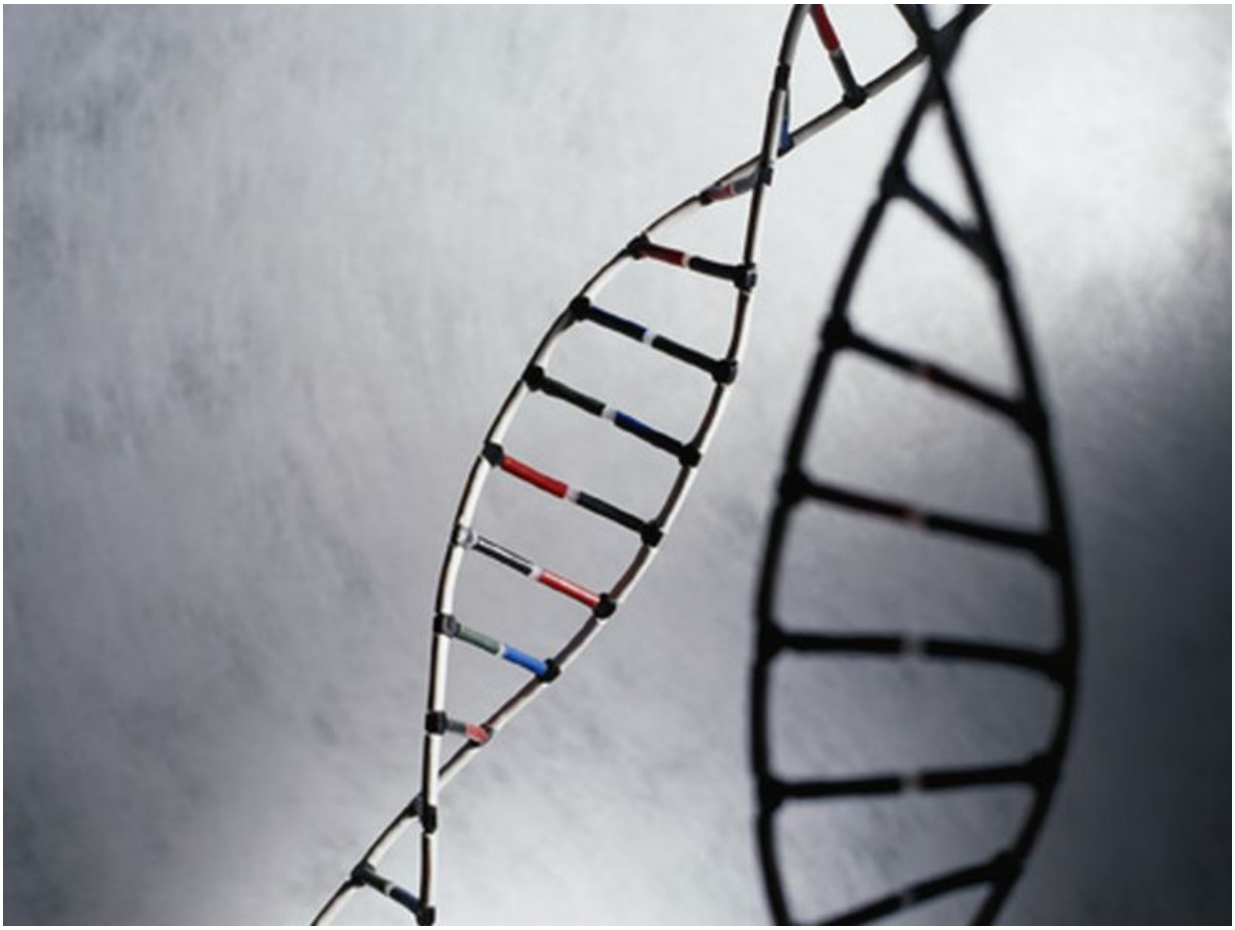

(HealthDay)—Two genetic variants predict the cardiovascular effect of

intensive glycemic control in the Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial, according to research published online Aug. 15 in *Diabetes Care*.

Hetal S. Shah, M.B.B.S., M.P.H., from the Joslin Diabetes Center in Boston, and colleagues analyzed 6.8 million common variants for genome-wide association with cardiovascular mortality among 2,667 white subjects from the ACCORD intensive treatment arm. In the entire ACCORD white genetic dataset (5,360 participants), significant loci were examined for their modulation of cardiovascular responses to glycemic treatment assignment.

The researchers identified two loci that attained genome-wide significance as determinants of cardiovascular mortality in the ACCORD intensive arm (10q26 and 5q13). In the entire ACCORD white genetic dataset, a genetic risk score (GRS) defined by the two variants was a significant modulator of cardiovascular mortality response to treatment assignment. Participants with a GRS of 0 had a reduction in cardiovascular mortality in response to intensive treatment (hazard ratio, 0.24; 95 percent confidence interval, 0.07 to 0.86); those with a GRS of 1 had no difference (hazard ratio, 0.92; 95 percent confidence interval, 0.54 to 1.56); and those with a GRS ≥2 had an increase (hazard ratio, 3.08; 95 percent confidence interval, 1.82 to 5.21).

"Further studies are warranted to determine whether these findings can be translated into new strategies to prevent cardiovascular complications of diabetes," the authors write.

Several pharmaceutical companies provided study medications, equipment, or supplies.

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