Genetic factors conferring diabetes don't affect progression

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(HealthDay)—Genetic variants that predispose to diabetes are not associated with the rate of progression from diabetes to requirement of insulin treatment, according to a study published online Nov. 1 in *Diabetes Care*.

Kaixin Zhou, Ph.D., from the University of Dundee in the United Kingdom, and colleagues examined comprehensive electronic medical records for 5,250 patients with type 2 diabetes. The authors sought to identify the association between clinical, biochemical, and genetic factors with the risk of progression of type 2 diabetes from diagnosis to requirement for insulin treatment.

The researchers found that both low and high body mass index (BMI) were associated with the risk of progression. There were independent

associations for faster progression with younger age at diagnosis, higher log triacylglyceride concentrations (hazard ratio, 1.28 per mmol/L), and lower high-density lipoprotein concentrations (hazard ratio, 0.70 per mmol/L), in an analysis stratified by BMI and glycated hemoglobin. Utilizing a genetic risk score derived from 61 diabetes risk variants, a higher score was associated with a younger age of diagnosis and a younger age at starting insulin, but was not associated with the rate of progression.

"The genetic factors that predispose to diabetes are different from those that cause rapid progression of diabetes suggesting a difference in biological process that needs further investigation," the authors write.

More information: Abstract
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