One-hour plasma glucose useful predictor of diabetic retinopathy

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(HealthDay)—One- and two-hour plasma glucose concentrations (1h-PG

and 2h-PG, respectively) are similarly effective at predicting diabetic retinopathy (DR), according to a study published online April 5 in *Diabetes Care*.

Ethan Paddock, from the National Institutes of Health in Phoenix, and colleagues assessed the ability of 1h-PG and 2h-PG, derived from a 75-g oral glucose tolerance test (OGTT), to predict DR among an American Indian community in the southwestern United States. The authors assessed cross-sectional and longitudinal cohorts of 2,895 and 1,703 individuals, respectively.

The researchers found that the prevalence and incidence of DR changed in a similar manner across the distributions of 1h-PG and 2h-PG concentrations. Overall, 1h-PG and 2h-PG showed similar value in identifying prevalent and incident DR using direct ophthalmoscopy. The cut points of 230 (type 2 diabetes) and 173 mg/dL (impaired glucose tolerance) in the 1h-PG were comparable to 2h-PG cut points of 200 mg/dL and 140 mg/dL, respectively.

"1h-PG is a useful predictor of retinopathy risk, has a predictive value similar to that of 2h-PG, and may be considered as an alternative glucose time point during an OGTT," the authors write.

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