Autonomic dysfunction predicts cardiovascular events in T2DM

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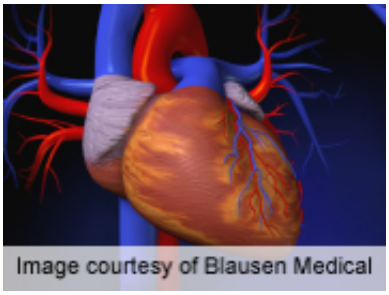

Autonomic dysfunction predicts cardiovascular events for patients with type 2 diabetes; and, the presence of cardiovascular autonomic neuropathy predicts severe hypoglycemia in type 2 diabetes, according to two studies published online Aug. 19 in *Diabetes Care*.

(HealthDay)—Autonomic dysfunction predicts cardiovascular events for patients with type 2 diabetes; and, the presence of cardiovascular autonomic neuropathy (CAN) predicts severe hypoglycemia (SH) in type 2 diabetes, according to two studies published online Aug. 19 in *Diabetes Care*.

Jaana J. Karjalainen, from Oulu University Hospital in Finland, and colleagues examined the correlation between heart rate recovery (HRR), 24-hour HR variability (SDNN) and heart rate turbulence (HRT), and echocardiographic parameters; metabolic, inflammatory, and coronary risk variables; exercise capacity; and type 2 diabetes in a cohort of 1,060 patients with coronary artery disease. In a multivariate model, the

researchers found that exercise capacity strongly predicted HRR, SDNN, and HRT. For patients with type 2 diabetes, reduced HRR and SDNN and blunted HRT predicted the composite end point of cardiovascular death, acute coronary events, stroke, and hospitalization for heart failure, in univariate analysis. No autonomic markers predicted the composite end point after multivariate adjustment.

Jae-Seung Yun, M.D., from the Catholic University of Korea in Suwon, and colleagues examined the development of SH in the presence of CAN in 894 patients with type 2 diabetes. During a median follow-up of 9.5 years, the researchers found that 9.9 percent of patients experienced 77 episodes of SH (1.33 per 100 patient-years). As the CAN score increased, the events of SH increased (5.4 percent for patients with normal, 17.2 percent for patients with early, and 22.7 percent for patients with definite CAN). SH correlated with definite CAN.

"Definite CAN was an independent prognostic factor for the development of SH in patients with type 2 diabetes," Yun and colleagues write.

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More information: Abstract - Karjalaine
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