sRAGE linked to risk of incident diabetic nephropathy

June 22 2017

(HealthDay)—Serum levels of soluble receptor for advanced glycation

end products (sRAGE) are associated with the risk of developing incident diabetic nephropathy (DN) in individuals with type 1 diabetes, according to a study published online June 19 in *Diabetes Care*.

Ronald Klein, M.D., from the University of Wisconsin School of Medicine and Public Health in Madison, and colleagues examined the correlation between serum levels of carboxymethyl lysine (CML) and sRAGE and the risk of developing incident DN over a 22-year period. Relevant data were included for 676 participants who contributed 2,350 person-intervals to the Multistate Markov models.

The researchers found that the estimated five-year incidence of DN was 15 percent. Higher levels of sRAGE were significantly associated with incidence of DN after adjustment for duration of diabetes (hazard ratio, 1.12 per 0.2 log pg/mL). After further adjustment for age at diagnosis of diabetes and hemoglobin A1c level, the significant correlation persisted, as did the correlations for sRAGE with incidence of chronic kidney disease (CKD) and proteinuria. There was no significant association for CML level with development of DN, CKD, or proteinuria. Higher levels of sRAGE and CML correlated with increased risk of death following DN (hazard ratios, 1.12 and 1.08 per 0.2 log pg/mL, respectively), after adjustment for other factors.

"We found evidence that serum levels of sRAGE are modestly but significantly associated with the incidence of DN independent of other risk factors studied," the authors write.

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