Urinary Albumin Excretion and Carotid Intima-Media Thickness

To the Editor:

Kramer et al.1 examined the association between urinary albumin excretion (UAE) and carotid artery intima-media thickness (IMT), left ventricular mass, and coronary artery calcification in the Multi-Ethnic Study of Atherosclerosis (MESA) study. In this study, no significant association was present between UAE and the mean common or internal carotid artery IMT after adjustment for diabetes and blood pressure in this low-risk population.

In Prevention of REnal and Vascular ENdstage Disease Intervention Trial (PREVEND IT), a randomized, double-blind study, we studied the IMT of the left common carotid artery in subjects with high-normal UAE.2 Like MESA, PREVEND IT included subjects at lower cardiovascular risk without indication for primary prevention. The mean age of 51±11 years and the mean IMT of 0.77±0.18 mm were even lower than described in the MESA study. In the overall PREVEND IT population, we found a significant correlation (r=0.14) between urinary albumin excretion and IMT. After adjustment for covariates, no significant difference could be demonstrated in the nondiabetic albuminuric participants, which confirms the finding of Kramer et al.1 In contrast, in type 2 diabetic patients (n=57), the correlation between urinary albumin excretion and IMT remained significant after adjusting for several traditional cardiovascular risk factors (r=0.40; P=0.0049).3

The findings of both studies suggest that UAE is related to (subclinical) atherosclerosis, as measured by increased IMT, in subjects not at high risk for cardiovascular disease. Furthermore, this association is predominantly mediated by a clustering of cardiovascular risk factors.

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