Kidney Disease Onset Linked to Poor Diet

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Highlight: A 15-year follow-up study showed that bad eating habits increased microalbuminuria risk twofold.

Body

Unhealthy diets and obesity may increase risk of early stage *chronic kidney disease (CKD)* , a study found.

"This study suggests that beyond calories, diet quality independent affects CKD risk because poor diet quality was associated significantly with incident microalbuminuria even after adjusting for other lifestyle factors and obesity," researchers wrote in a paper published online ahead of print in the *American Journal of Kidney Disease*.

The study, by Alex Chang, MD, MS, of Johns Hopkins University in Baltimore, and colleagues included 2,354 black and white adults aged 28-40 years without baseline microalbuminuria or an estimated glomerular filtration rate below 60 mL/min/1.73 m^2 . The subjects were participants in the CARDIA (***Coronary Artery Risk Development in Young Adults***) study, a longitudinal study of cardiovascular disease risk factors. The study had three five-year follow-up examinations.

During a 15-year follow-up, microalbuminuria developed in 77 participants (3.3%). After adjusting for multiple variables, poor diet quality and obesity each was associated with a significant twofold increased risk of microalbuminuria, which the investigators defined as age- and sex-adjusted albumin-creatinine ratio (ACR) of 25 mg/g or higher at two or more successive follow-up examinations.

Low physical activity and fast food consumption were not associated with microalbuminuria risk.

Compared with subjects who had no unhealthy lifestyle-related factors (poor diet quality, current smoking, and obesity), those with one, two, or three of these factors had a 2.0, 3.7, and 5.1 times risk of microalbuminuria after adjusting for the presence of diabetes, hypertension, and other confounders.

The researchers defined diet quality using a score based on components of the DASH (Dietary Approaches to Stop Hypertension) diet. The diet is high in fruits and vegetables, moderate in low-fat dairy, and low in animal protein, with a substantial amount of protein derived from nuts and legumes.

Study strengths included the relatively young age of the participants at baseline, long duration of follow-up, standardized validated diet assessment measures, and repeated ACR measurements, the authors noted. The study had some limitations, such as self-reported dietary history and physical activity were self reported.

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