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ASN KIDNEY WEEK 2016 · NOVEMBER 15-20 · CHICAGO, IL

SMOKING MAY BLOCK SOME OF THE BENEFITS OF KIDNEY DISEASE MEDICATIONS

Highlights

- In a study of patients with chronic kidney disease, nonsmokers and smokers who successfully quit had slower worsening of their kidney function than those who were unsuccessful at quitting.
- Cigarette smoking partially negated the kidney-protective effects of patients' medications.
- Research that uncovered these findings will be presented at ASN Kidney Week 2016 November 15–20 at McCormick Place in Chicago, IL.

Chicago, IL (November 17, 2016) — To improve care for patients with kidney dysfunction, investigators are striving to identify modifiable risk factors that may slow the progression of chronic kidney disease (CKD) to kidney failure. A new study suggests that cigarette smoking partially negates the kidney-protective effects of medications taken by patients with early CKD, possibly by inducing higher kidney levels of oxidative stress. The findings will be presented at ASN Kidney Week 2016 November 15–20 at McCormick Place in Chicago, IL.

The study conducted by Bethany Roehm, MD, MS (Tufts Medical Center) and her colleagues included 108 smoking and 108 nonsmoking patients with early CKD who were taking angiotensin converting enzyme inhibitor (ACEI) drugs, which slow kidney function decline. All smokers underwent a smoking cessation intervention. Non-smokers (n = 108), continued smokers (n = 83), and quitters (n = 25) were followed 5 years after starting ACE inhibition.

Nonsmokers and smokers who successfully quit had slower worsening of their kidney function than those who were unsuccessful at quitting. In addition, continued smoking prevented the typical decrease in protein excretion in the urine that is indicative of kidney protection when patients are taking ACEI drugs. This appeared to be due to oxidative stress induced by cigarette smoking.

"It has practically become dogma that if you have a patient with high blood pressure and CKD that you start them on an ACEI, and we are often comforted as clinicians that we are doing something to help slow progression of their kidney disease in doing this," said

Dr. Roehm. "But our data suggest that this may not be the case for smokers, and our study underscores the importance of doing all we can as clinicians to encourage our patients to stop smoking." She added that the results of this small study need to be confirmed in larger studies and in studies that include patients with CKD due to various causes.

Study: "Cigarette Smoking Partially Negates the Kidney Protective Effect of ACE Inhibition in Stage 2, Non-Diabetic, Hypertension-Associated CKD" (Abstract 2784)

ASN Kidney Week 2016, the largest nephrology meeting of its kind, will provide a forum for more than 13,000 professionals to discuss the latest findings in kidney health research and engage in educational sessions related to advances in the care of patients with kidney and related disorders. Kidney Week 2016 will take place November 15–20, 2015 in Chicago, IL.

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