Smoking Counteracts the Benefit of Medications for Kidney Disease

Smoking may partly counteract the benefits of treatment with angiotensin converting enzyme inhibitors (ACE inhibitors) for patients with chronic kidney disease (CKD), according to a study presented at Kidney Week 2016.

Smoking has been linked to worsening kidney decline, but the exact mechanisms are unclear, according to lead author Bethany Roehm, MD, of Tufts Medical Center in Boston.

“The importance of smoking as a renal risk factor is highlighted by the fact that its negative effects have been shown in subjects of the general population and in patients with primary or secondary renal disease,” said Stephen R. Orth, MD, PhD, FASN, of the Dialysis Center in Bad Aibling, Germany (Hallan SI and Orth SR. The benefit of quitting smoking was particularly impressive due to the fact that eGFR at the end of the study [for quitters] did not differ from never-smokers,” Orth said. “The newest aspect is that ACE inhibition is not able to fully counteract smoking’s affects, said Orth.

The results are absolutely in line with what we know about the renal effects of smoking in patients with nephroclerosis and other renal diseases,” he said. “The newest aspect is that ACE inhibition is not able to fully protect from the adverse renal effects of smoking.”

But cessation strategies can make a big difference.

“The benefit of quitting smoking was particularly impressive due to the fact that eGFR at the end of the study [for quitters] did not differ from never-smokers,” Orth said.

Studies that show how nephrologists can boost cessation rates would be useful, said Orth.

“Nephrologists should be aware that smoking cessation strategies in smokers with a diseased kidney are part of their therapeutic armamentarium,” he said.

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