Medication improves measure of kidney disease in patients with diabetes

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Among patients with diabetes and kidney disease, most receiving an angiotensin-converting enzyme inhibitor or an angiotensin receptor blocker, the addition of the medication finerenone compared with placebo resulted in improvement in albuminuria (the presence of excessive protein [chiefly albumin] in the urine), according to a study in the September 1 issue of *JAMA*.

Diabetes mellitus is the most common cause of end-stage re¬nal disease in the developed world. Trials of pa¬tients with diabetic nephropathy (kidney disease from long-standing diabetes) have shown a strong relationship between magnitude of albuminuria reduction and slowing of chronic kidney disease (CKD) progression as well as reduced cardiovascular event rates. There is an unmet need to safely manage albuminuria with¬out adversely affecting potassium levels in patients with type 2 diabetes mellitus who have a clinical diagnosis of diabetic kid¬ney disease, according to information in the article.

George L. Bakris, M.D., of University of Chicago Medicine, and colleagues randomly assigned 823 patients (821 received study drug) with diabetes and elevated albuminuria who were receiving an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker to varying doses of the drug finerenone or placebo. In previous research, finerenone reduced albuminuria in pa¬tients with chronic kidney disease and heart failure, with a lower incidence of hyperkalemia (higher than normal levels of potassium in the blood) compared to another medication. The current study was conducted at 148 sites in 23 countries.

At study entry, 37 percent of patients treated had very high albuminuria. The researchers found that finerenone reduced albuminuria at day 90 in a dose-dependent manner, with a significant reduc¬tion in albuminuria (urinary albumin-creatinine ratio) ranging from 21 percent to 38 percent in the finerenone dos-age groups of 7.5 to 20 mg/d compared with placebo.

The outcome of hyperkalemia leading to discontinuation was not observed in the placebo and finerenone 10-mg/d groups; discontinuation in the finerenone 7.5-, 15-, and 20-mg/d groups were 2.1 percent, 3.2 percent, and 1.7 percent, respectively. There were no differences in the incidence of an estimated glomerular filtration rate (a measure of kidney function) decrease of 30 percent or more or in incidences of adverse events and serious adverse events between the placebo and finerenone groups.

"Further trials are needed to compare finerenone with other active medications," the authors write.

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