Many Unaware of Their Chronic Kidney Disease

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FROM THE ANNUAL MEETING OF THE AMERICAN SOCIETY OF NEPHROLOGY

DENVER – Of people with at least six clinical markers of chronic kidney disease, 12% were aware of their diagnosis, results from a large analysis showed.

Of the common markers of chronic kidney disease (CKD), only elevated albuminuria was associated with greater individual awareness of chronic kidney disease.

The findings underscore the importance of good communication when common markers of chronic kidney disease arise, Dr. Delphine S. Tuot said in an interview during a poster session at the meeting.

"Even individuals with six manifestations of CKD – that means they're hypertensive, they have acidosis, anemia, hyperkalemia, hyperphosphatemia, and albuminuria – are unaware that their kidneys are implicated in these conditions and that they have kidney disease," said Dr. Tuot of the division of nephrology at the University of California, San Francisco. "I found that astounding."

She and her associates from the Centers for Disease Control and Prevention Chronic Kidney Disease Surveillance Team evaluated data from 1,725 nonpregnant adults with chronic kidney disease who participated in the National Health and Nutrition Examination Survey, 1999-2008, and who had seen a health care provider within the previous year. Awareness of chronic disease was defined as answering "yes" to the following question: "Have you ever been told by a doctor or other health care provider that you have weak or failing kidneys?"

The researchers created a clinical markers index score (CMIS), which ranged from 0 to 7 and consisted of equally weighted binary indicators of abnormal values for clinical markers. Those included albuminuria (a urine albumin to creatinine ratio of greater than 17 mg/g in women and greater than 25 mg/g in men); hyperkalemia (a serum potassium level of greater than 5.0 mEq/L); hyperphosphatemia (a serum phosphate level of greater than 4.5 mEq/L); anemia (a hemoglobin level of less than 12.5 g/dL in women and less than 13.5 g/dL in men); acidosis (a serum bicarbonate level of less than 22 mEq/L); hypertension (greater than 140/90 mm Hg without albuminuria or greater than 130/80 mm Hg with albuminuria); and an elevated blood urea nitrogen level (15 mmol/L or greater).

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DR. TUOT

Next, Dr. Tuot and her associates used multivariable logistic regression to estimate the odds and percentages of awareness of CKD based on respondents' CMIS, adjusted for demographic characteristics and diabetes, weighted to the U.S. population.

Of respondents with at least six clinical markers of CKD, 12% were aware of their disease, Dr. Tuot reported, compared with 11% who had four to five markers, 10% who had two to three markers, and 6% who had up to one marker.

Of the markers in the CMIS, only albuminuria was significantly associated with greater individual awareness of CKD (odds ratio, 3.4).

"Chronic kidney disease is important," Dr. Tuot said. "Its presence and consequences need to be relayed to patients. Have that early conversation and assure patients that just because they have kidney disease does not mean they will need dialysis."

Dr. Tuot acknowledged certain limitations of the study, including its cross-sectional design and the fact that NHANES lacks specific information about physicians or other health care providers who provided care to the respondents. ■

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Major Finding: Of individuals with at least six clinical markers of chronic kidney disease, 12% were aware of their disease, as were 11% with four to five markers, 10% with two to three markers, and 6% with one marker.

Data Source: An analysis of 1,725 nonpregnant adults in the National Health and Nutrition Examination Survey, 1999-2008, who had chronic kidney disease and had seen a health care provider in the previous year.

Disclosures: The project was supported under a cooperative agreement from the Centers for Disease Control and Prevention through the Association of American Medical Colleges. Dr. Tuot said she was supported by the American Kidney Fund Clinical Scientist in Nephrology grant.