Assessing patients' kidney health may help predict their risk of cardiovascular disease

New research indicates that tests of patients’ kidney health may provide insights on their risk of developing cardiovascular disease. The findings are published in an upcoming issue of JASN.

To calculate an individual's 10-year risk of having a cardiovascular problem, such as a heart attack or stroke, clinicians often use the atherosclerotic cardiovascular disease (ASCVD) risk score, which is based on the person's age, sex, race, cholesterol, systolic blood pressure, blood pressure-lowering medications used, diabetes status, and smoking status. Experts have noted that additional (non-traditional) risk factors should also be considered when deciding whether patients should take preventive medications such as statins.

To evaluate whether measures of kidney function—called the urinary albumin-to-creatinine ratio and the estimated glomerular filtration rate—might be useful, a team led by Guang Ning, MD, Ph.D. and Weiqing Wang, MD, Ph.D. (Shanghai Jiaotong University School of Medicine) examined data from the China Cardiometabolic Disease and Cancer Cohort study, which is a large, nationwide, multicenter, prospective study of Chinese residents aged 40 years and older.

The team found that the addition of the urinary albumin-to-creatinine ratio and the estimated glomerular filtration rate further improved estimates of future cardiovascular disease risk on top of the ASCVD risk score calculated by traditional risk factors.

"For the primary prevention of cardiovascular disease, a comprehensive evaluation using both traditional and non-traditional risk factors is important," said Dr. Wang. "Evaluation using traditional risk factors such as glucose, blood pressure, and lipids could make a first stratification on your risk, and further evaluation using non-traditional risk factors related to kidney health could significantly refine the stratification and predict the risk more accurately."

More information: "Cardiovascular Risk Based on ASCVD and KDIGO Categories in Chinese Adults: A Nationwide, Population-based, Prospective Cohort Study," JASN, DOI: 10.1681/ASN.2020060856

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