New model predicts which patients with kidney disease may develop heartbeat irregularities

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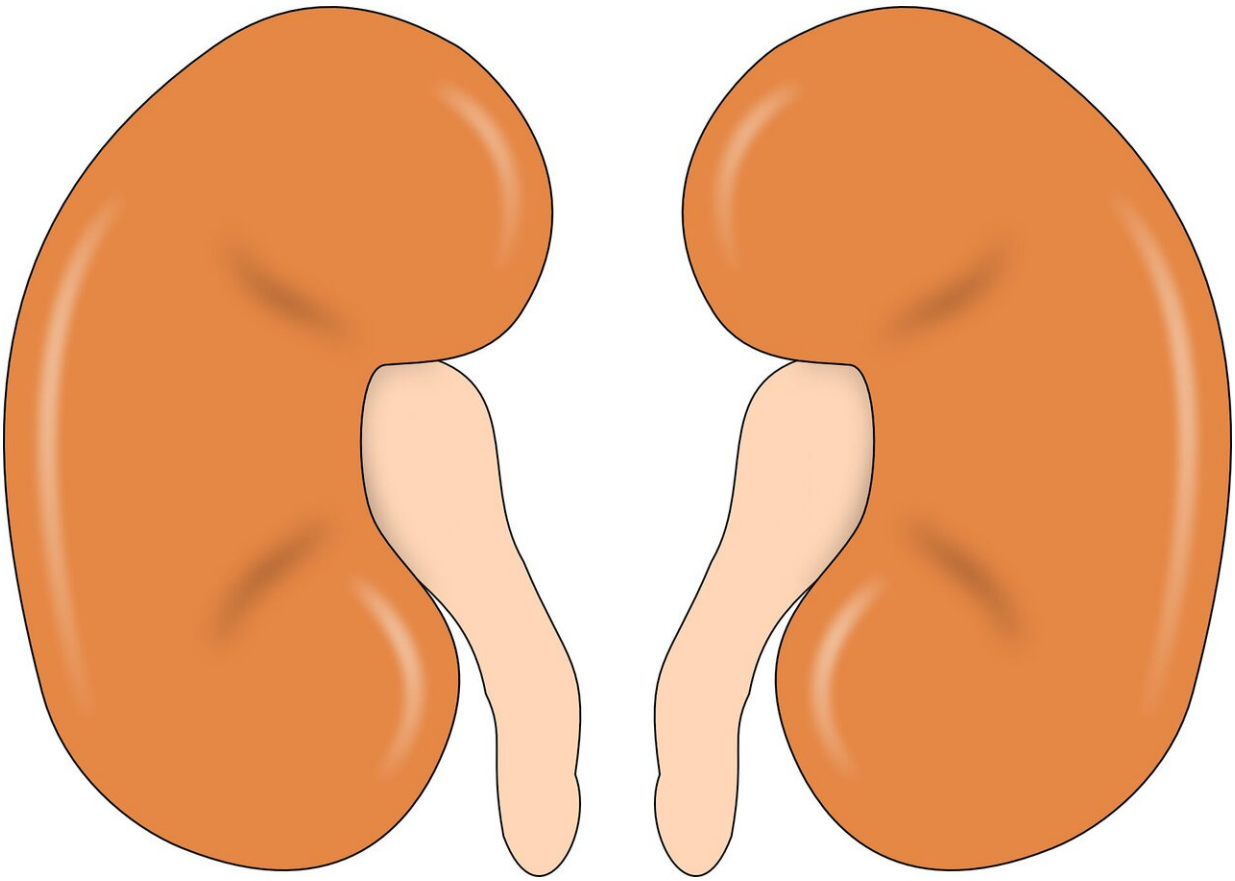

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A new model that uses machine learning, which is a type of artificial

intelligence, may help predict which patients with kidney disease are at especially high risk of developing heart beat irregularities. The findings come from a study that will be presented online during ASN Kidney Week 2020 Reimagined October 19-October 25.

Atrial fibrillation (AF)—an irregular, often rapid heart rate—is common in patients with chronic kidney disease (CKD) and is associated with poor kidney and cardiovascular outcomes. Researchers conducted a study to see if a new prediction model could be used to identify patients with CKD at highest risk of experiencing AF. The team compared a previously published AF prediction model with a model developed using machine learning (a type of artificial intelligence) based on clinical variables and cardiac markers.

In an analysis of information on 2,766 participants in the Chronic Renal Insufficiency Cohort (CRIC), the model based on machine learning was superior to the previously published model for predicting AF.

"The application of such a model could be used to identify patients with CKD who may benefit from enhanced cardiovascular care and also to identify selection of patients for clinical trials of AF therapies," said lead author Leila Zelnick, Ph.D. (University of Washington, in Seattle)

More information: Study: "Prediction of Atrial Fibrillation Using Clinical and Cardiac Biomarker Data: The CRIC Study"

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