

ORIGINAL RESEARCH

RHYTHM DISORDERS AND ELECTROPHYSIOLOGY

Rivaroxaban vs Vitamin K Antagonist in Patients With Atrial Fibrillation and Advanced Chronic Kidney Disease



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ABSTRACT

BACKGROUND Treatment with vitamin K antagonists (VKAs) has been linked to worsening of kidney function in patients with atrial fibrillation (AF).

OBJECTIVES XARENO (Factor XA-inhibition in RENal patients with non-valvular atrial fibrillation Observational registry; NCT02663076) is a prospective observational study comparing adverse kidney outcomes in patients with AF and advanced chronic kidney disease receiving rivaroxaban or VKA.

METHODS Patients with AF and an estimated glomerular filtration rate (eGFR) of 15 to 49 mL/min/1.73 m² were included. Blinded adjudicated outcome analysis evaluated adverse kidney outcomes (a composite of eGFR decline to <15 mL/min/1.73 m², need for chronic kidney replacement therapy, or development of acute kidney injury). A composite net clinical benefit outcome (stroke or systemic embolism, major bleeding, myocardial infarction, acute coronary syndrome, or cardiovascular death) was also analyzed. HRs with 95% CIs were calculated using propensity score overlap weighting Cox regression.

RESULTS There were 1,455 patients (764 rivaroxaban; 691 VKA; mean age 78 years; 44% females). The mean eGFR was 37.1 ± 9.0 in those receiving rivaroxaban and 36.4 ± 10.1 mL/min/1.73 m² in those receiving VKA. After a median follow-up of 2.1 years, rivaroxaban was associated with less adverse kidney outcomes (HR: 0.62; 95% CI: 0.43-0.88) and all-cause death (HR: 0.76, 95% CI: 0.59-0.98). No significant differences were observed in net clinical benefit.

CONCLUSIONS In patients with AF and advanced chronic kidney disease, those receiving rivaroxaban had less adverse kidney events and lower all-cause mortality compared to those receiving VKA, supporting the use of rivaroxaban in this high-risk group of patients. (JACC Adv 2024;3:100813) © 2024 The Authors. Published by Elsevier on behalf of the American College of Cardiology Foundation. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

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