

Abstract Submission No.: A-0136

Clinical Outcomes of Direct Oral Anticoagulants Versus Warfarin in CKD G3-G4 Patients with Atrial Fibrillation: A Nationwide Cohort Study of South Korean Adults

Hyung Woo Kim¹, Minjin Kang², Cheol Ho Park¹, Jae Young Kim³, Seung Hyeok Han¹, Tae Ik Chang³

¹Department of Internal Medicine-Nephrology, Severance Hospital, Korea, Republic of

²Department of Department of Research and Analysis, National Health Insurance Service Ilsan Hospital, Korea, Republic of

³Department of Internal Medicine-Nephrology, National Health Insurance Service Ilsan Hospital, Korea, Republic of

Objectives : The efficacy and safety of direct oral anticoagulants (DOACs) compared with warfarin in patients with chronic kidney disease (CKD) remains inconclusive. We conducted a nationwide retrospective study to address this issue in patients with CKD and atrial fibrillation (AF).

Methods : This study utilized the claims database of the Korean National Health Insurance System. Among patients with AF who initiated DOAC or warfarin between 2013 and 2020, a total of 28,442 patients with a baseline estimated glomerular filtration rate (eGFR) of 15 to 59 ml/min per 1.73m² were included. DOAC users were matched to warfarin users at a 1:1 ratio by propensity score. The primary outcome was defined as the composite of ischemic stroke, systemic embolism, or cardiovascular death. The secondary outcome included major bleeding events, encompassing intracranial and gastrointestinal bleeding.

Results : The propensity score yielded a matched cohort of 7,936 DOAC users and 7,936 warfarin users, with no significant differences in baseline characteristics. Over a mean follow-up of 2.3 years, 1,970 primary events occurred. Compared with warfarin, DOAC use was associated with a lower risk of primary outcome (HR, 0.70; 95% CI, 0.64-0.77). In addition, the risk of major bleeding was significantly lower in DOAC users (HR, 0.70; 95% CI, 0.58-0.84). In subgroup analyses stratified by eGFR, the lower risk of the primary outcome associated with DOAC use was more pronounced, particularly in patients with an eGFR of 30 ml/min/1.73m² or higher. Furthermore, DOAC use was more favorably associated with a lower risk of major bleeding, particularly in patients with an eGFR 45 ml/min/1.73m² or higher.

Conclusions : In patients with AF and CKD, DOAC use was associated with a lower risk of the composite outcome of ischemic stroke, systemic embolism, or cardiovascular death, and major bleeding events compared with warfarin use.