A Cross-sectional Study of Bleeding Events in Atrial Fibrillation Patients with Chronic Kidney Disease: Ramathibodi Anticoagulation Clinic Experience

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Background: Both atrial fibrillation and chronic kidney disease increase the risk of stroke and systemic thromboembolism. However, these risks and benefits of anticoagulation treatment have not been thoroughly investigated in patients with both conditions. Warfarin is the most widely used anticoagulant in Atrial Fibrillation patients. The major side effect of Warfarin is bleeding which can be fatal in some cases. We usually evaluate risk of bleeding by using HAS-BLED Score, but there is some limitations in patients with chronic kidney disease.

Objective: The aim of this study was to further identify the risk of bleeding in chronic kidney disease patients with the need of Warfarin therapy.

Methods: According to Ramathibodi Hospital Anticoagulation Clinic Registry, we identified atrial fibrillation patients with warfarin-used from 2012 to 2017. Baseline characteristics, Time in Therapeutic Range (TTR), glomerular filtration rate (GFR), CHADS-VASc, and HAS-BLED score were analyzed to evaluate the correlation with bleeding outcome.

Results: A total of 129 cases were enrolled in the study. For primary outcome, there were 6 major bleeding events (Gastrointestinal hemorrhage and Intracranial hemorrhage cases). No difference was noted in major bleeding events between different stages of chronic kidney disease. Other risk factors were analyzed (including age, gender, hypertension, cancer, old Ischemic Stroke, low TTR). Low TTR and high HAS-BLED score were associated with more bleeding events even in patients with mild chronic kidney disease.

Conclusion: Time in Therapeutic Range (TTR) and HAS-BLED score may have more predictive value than Chronic kidney disease. However, we need more populations and bleeding events in order to improve the power of our study.

Keywords: Atrial Fibrillation, Ramathibodi, Chronic kidney disease, Anticoagulation