Oral anticoagulant use and outcomes in Asian patients with atrial fibrillation in the GLORIA-AF Registry

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Background: Ethnic differences in the management and outcomes of patients with atrial fibrillation (AF) have been shown in previous studies, but available data is still limited, although urgently needed.

Purpose: to analyse oral anticoagulant (OAC) prescription, OAC discontinuation, and long-term risk of major outcomes in Asian patients with AF, using data from a global prospective cohort study.

Methods: Using data from the GLORIA-AF Registry Phase II and III, we analysed patients according to their self-reported ethnicity (Asian vs. Non-Asian), and according to Asian ethnic subgroup (i.e. Chinese, Japanese, Korean and other Asian). Odds of OAC prescription were analysed through multivariable logistic regression, while the risk of OAC discontinuation and adverse outcomes were analysed through multivariable Cox-regression model. Primary outcome of this analysis was defined as the composite of all-cause death and major adverse cardiovascular events (MACE).

Results: 34,421 AF patients were included (70.0±10.5 years, 45.1% females, 6,900 (20.0%) Asian). Compared to Non-Asian subjects, prescription of OAC and non-vitamin K antagonist oral anticoagulant (NOAC) was lower in Asian subjects (Odds Ratio [OR] and 95% Confidence Intervals (CI): 0.23 [0.22-0.25] and 0.66 [0.61-0.71], respectively; Figure 1), but higher in the Japanese subgroup. Asian ethnicity was also associated with OAC discontinuation (Hazard Ratio [HR] and [95%CI]: 1.79 [1.67-1.92]), and lower risk of the primary composite outcome (HR [95%CI]: 0.86 [0.76-0.96]; Figure 2). Among the secondary outcomes, Asian patients had also higher risk of thromboembolism and intracranial haemorrhage, and lower risk of major bleeding events.

Conclusions: In this large, contemporary cohort of patients with AF, Asian subjects received suboptimal management of thromboembolic risk, and showed a peculiar long-term risk of adverse outcomes. Integrated and appropriate treatment of these patients is crucial to improve their prognosis.
Figure 1
Figure 2