The current anticoagulant patterns and determinants of Asian patients with nonvalvular atrial fibrillation

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Introduction: Atrial fibrillation (AF) is associated with an increased risk of thromboembolic events. Many patients with AF receive chronic anticoagulation, either with vitamin K antagonists (VKAs) or with non-VKA oral anticoagulants (NOACs) or with aspirin. We sought to analyze variables associated with prescription of NOAC or aspirin.

Methods: In the prospective multicenter registry (CODE-AF registry, Registry for COMparision study of Drugs for symptom control and complication preVention of AF), 10732 Patients with AF were prospectively recruited. Multivariate analyses were performed to identify variables associated with use of NOAC.

Result: Mean age was 67.0 ± 14.4 years, and 64.7% of the patients were men. The mean CHA2DS2-VASc and HAS-BLED scores were 2.69 ± 1.67 and 1.89± 1.06, respectively. In patients with high stroke risk (CHA2DS2-VASc score ≥ 2), oral anticoagulants (OAC) was used in 83.2% including 68.9% with NOAC. In patient with low to intermediate stroke risk, OAC was used in 38.0% including 22.1% with NOAC. Variables favoring NOAC treatment were high CHA2D2-VASc score (OR 2.32; CI 95% 2.05-2.63), history of hypertension (OR 5.15; CI 95% 4.21-6.23), stroke or transient ischemic attack (TIA) (OR 1.80; CI 95% 1.34-2.41), malignancy (OR = 1.76; CI 95% 1.35 – 2.30), and major bleeding (OR = 6.79; CI 95% 3.81-12.11), old age (OR 1.04; CI 95% 1.03-1.05), and drinking status (OR 1.46; CI 1.21-1.75). Variable associated with OAC plus antiplatelet agents were high HAS-BLED score (OR = 2.01; CI 95% 1.84 – 2.21), myocardial infarction (OR = 2.64; CI 95% 1.88-3.70), peripheral artery disease (OR = 2.63; CI 95% 2.02-3.43), heart failure (OR=1.32; CI 95% 1.05-1.67), pace maker implantation (OR=1.51; CI 95% 1.12-2.04) and dyslipidemia (OR = 2.23; CI 95% 1.93-2.63).

Conclusion: In patients with high stroke risk, OAC rate was 83.2% and NOAC was used in 68.9%. While the usage of NOAC was associated with high stroke risk, hypertension, stroke or TIA, malignancy and major bleeding history, the usage of antiplatelet agents was high bleeding risk, myocardial infarction, diabetes mellitus, heart failure, peripheral artery disease, dyslipidemia and pace maker impanation status.