Choice of antithrombotic drug in Non-Valvular atrial fibrillation patients in real-world practice

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Background: Atrial Fibrillation (AF) is the most common cardiac arrhythmia recognized as independent predictor of mortality and morbidity. Non-Valvular Atrial Fibrillation (NVAF) is the most persistent etiologies of this disease, it affects most often the elderly, increasing the prevalence with age. Although guidelines recommend to individualize the treatment stratifying the patients with AF by stroke and bleeding risk, little is known on the extent to which the increase of clinical risks influence the choice of antithrombotic (AT) therapy.

Objectives: To assess the level of adherence to the guidelines for the prevention of thromboembolic risk in patients with NVAF.

Methods: A population-based cohort study was conducted using administrative data from a local health authority in the Campania Region (~1,000,000 inhabitants). NVAF was defined as one or more claims for atrial fibrillation (ICD-9-CM code 427.31) between July, 2013 and June, 2014 where none of the claims were associated with cardioversion or cardiac ablation during the identification period and there was no evidence of valve-related diagnoses or procedures. The cohort was classified according to the first drug dispensing during 6 months from the discharge date for atrial fibrillation. Patients were categorized in low ischemic stroke (CHA2DS2-VASc) (LR, score=0), moderate-risk (MR, score=1), high-risk (HR, score≥2). Multivariable logistic regression was used to evaluate the associations between ischemic stroke and bleeding (HAS-BLED) risk with the choice of non-vitamin K antagonist oral anticoagulants (NOACs) versus vitamin K antagonists (VKAs) therapy.

Results: A total of 1,963 patients were identified: 4.9% LR, 7.6% MR and 87.5% HR patients. Overall, 36.4% of patients were not treated (LR: 56.7%, MR: 55.0%, HR: 33.7%patients). Among patients treated, VKA in monotherapy was prescribed to 26.7% of the patients (LR: 23.8%, MR: 26.9%, HR: 26.8%), aspirin in monotherapy to 27.5% (LR: 31.0%, MR: 34.3%, HR: 27.0%), NOAC in monotherapy to 19.3% (LR: 23.8%, MR: 17.9%, HR: 19.2%), antiplatelet in monotherapy to 19.4% (LR: 16.7%, MR: 13,4%, HR: 19.8%), and associations to 7.1% (LR: 4.8%, MR: 7.5%, HR: 7.2%). In the sub-cohort of patients with prior stroke or transient ischemic attack (TIA) 37.5% did not receive any antithrombotic drug whereas among those treated 30.6% received VKA, 17.6% aspirin, 27.6%, other antiplatelet, 18.8% NOAC. The ischemic stroke and bleeding risks were not significantly associated with the choice of anticoagulant drug.

Conclusion: High proportion of NVAF patients with prior stroke, transient ischemic attack, or a CHA2DS2-VASc score of 2 or greater, not received oral anticoagulant as recommended. In contrast with recent guidelines, aspirin was commonly prescribed even in HR patients. Finally, the risk stratification did not influence the choice of anticoagulant drug.

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