When considering anticoagulation for patients with non-valvular atrial fibrillation (NVAF) who have relatively low CHADS₂: and CHA₂DS₂-VASc scores, cardiologists, who are mainly interested in primary prevention of major events, and neurologists, who treat cardioembolism patients, have different perspectives. For cardiologists, it is often difficult to continue anticoagulation for many target patients without the development of bleeding complications. The neurologists often complain when they see victims of undertuse or underdosing of anticoagulation.

Figure 1 shows the percentages of patients with low (0), intermediate (1), and high (≥2) CHADS₂ scores who were registered in the prospective, multicenter, Stroke Acute Management with Urgent Risk-factor Assessment and Improvement (SAMURAI)-NVAF Study. In this study, 1,192 patients with NVAF within 7 days after onset of ischemic stroke or transient ischemic attack (TIA) were enrolled between September 2011 and March 2014. The percentage of patients who took oral anticoagulant drugs prior to the index stroke/TIA was only 36.8%, even among the high-CHADS₂ score patients. Although the main reason for the absence of anticoagulation therapy was lack of identification of NVAF prior to the index stroke/TIA, ≥30% of the patients in any of the low-, intermediate-, and high-risk groups were not taking anticoagulant drugs, even though NVAF had been detected.

In this issue of the Journal, Suzuki and colleagues report how they determined the stroke risk in Japanese NVAF patients not on anticoagulation, based on a pooled analysis of 3,588 patients from the Shinken Database, J-RHYTHM Registry, and other databases.
The incidence of ischemic stroke was 13.3 per 1,000 person-years overall, and 5.4, 9.3, and 24.7 per 1,000 person-years, respectively, in the low-, intermediate-, and high-risk categories of CHADS2 scores. The rates, especially in the lower-risk categories, were unexpectedly low, for example, as compared with those from the results of the Bleeding with Antithrombotic Therapy (BAT) Study. The BAT study included 4,009 patients from 19 hospitals in Japan who were taking oral antiplatelet agents or warfarin for cardiovascular or cerebrovascular disease between October 2003 and March 2006. Of these, 1,221 patients had AF, and their annual incidence of ischemic stroke was 0.76%, 1.46%, and 2.90% in the respective risk categories based on CHADS2 score. Figure 2 shows how the stroke risk was re-analyzed using 1,086 patients with NVAF in the BAT register. The distribution of low, intermediate, and high CHADS2 score was 12.0%, 22.9%, and 65.1%, respectively, in patients without anticoagulation. The incidence of ischemic stroke in the overall patients without anticoagulation was 30.1 per 1,000 person-years; the incidence reached 39.0 per 1,000 person-years when the patients were limited to the intermediate risk category. These rates were similar to those from the first validation cohort for the CHADS2 score, the Euro Heart Survey, and a Japanese study by Inoue et al.

Why is the stroke risk different in the study by Suzuki et al. and the previous ones, including the BAT study? A possible reason is the decade-long difference in the medical environment, including the management of coexisting diseases, as Suzuki et al discuss. Because NVAF was not the primary theme of the BAT study, there may be limitations in using the BAT cohort for analysis of stroke risk in NVAF patients. Nevertheless, the relatively low stroke risk in the lower-risk NVAF patients shown by Suzuki et al using the 3 major Japanese databases might be somewhat optimistic as compared with the real world.

It would be undesirable if NVAF patients with a CHADS2 score of 1 were not given anticoagulation based solely on the findings of this study. Suzuki et al stress that the important point of their study is the higher incidence of ischemic stroke in patients with CHADS2 score ≥2, not the low incidence in those with CHADS2 score ≤1. Among components corresponding to the CHADS2 score of 1, hypertension, diabetes, and congestive heart failure are modifiable, but aging is not. Aging was most strongly related to stroke risk among the 4 components in the study by Suzuki et al. In the Loire Valley Atrial Fibrillation Project, the incidence of stroke was 32.6 per 1,000 person-years in NVAF patients ≥75 years old without any other CHADS2 risk factors who did not receive anticoagulation. Thus, anticoagulation is necessary for such patients. To put it the other way around, the recommendation for anticoagulation for NVAF patients <75 years with a CHADS2 score of 1 might be weakened in the future by further progress in therapeutic strategies against hypertension, diabetes, or heart failure.

The pooled cohort from the 3 major Japanese databases is a desirable cohort for clarifying the appropriate anticoagulation therapy for NVAF patients in Japan, where both ischemic and hemorrhagic strokes are relatively more common than in Western countries. Because 2 of these 3 studies are ongoing, we will obtain further useful findings from these databases in the future.

References

Anticoagulation for Lower-Risk AF


