Letter by Nielsen et al Regarding Article, “Ischemic Stroke Risk in Patients With Atrial Fibrillation and CHA2DS2-VASc Score of 1: Systematic Review and Meta-Analysis”

To the Editor:

We read with great interest the Brief Report by Joundi et al.1 Using contemporary data from observational studies investigating stroke rates in nonanticoagulated populations, the authors clearly demonstrated that atrial fibrillation (AF) patients with a CHA2DS2-VASc score of 1 are candidates for oral anticoagulation (OAC). The authors should be commended by their efforts for meticulousness in study selection and the accuracy in reporting meta-analyzed results using state-of-art methodology.

Indeed, the methodological considerations are pivotal when designing observational studies investigating stroke rates in a non untreated AF population similar to the studies included in the present meta-analysis. Much effort has recently been focusing on whether AF patients with a CHA2DS2-VASc score of 1 should be offered OAC. More recently, studies have been published suggesting stroke rates in such patients that would likely not warrant OAC. For example, Friberg et al reported stroke rates of 0.7% per year using data from the Swedish registries.2 Aspberg et al observed the same rate of stroke (also using the Swedish registries), which was also the corresponding stroke rate observed for patients with a CHADS2 score of 1.3 Finally, Chan et al reported a Taiwanese population and observed a relatively low (for an Asian population) stroke rate of 1.29% per year, specifically for male sex at age ranging 20 to 49 years with a CHA2DS2-VASc score of 1.4 However, the broad similarity for these 3 studies is the epidemiological design when constructing an AF cohort free from OAC. Patients who were receiving OAC at baseline were excluded—this is a sound decision. However, patients who during follow-up initiated treatment were likewise excluded. This conditioning on the future approach may lead to deflated event rates. Consider a hypothetical AF patient (not receiving OAC at baseline) who encounters an ischemic stroke and subsequently initiates treatment; this patient will not be included in the conditioning on the future approach. Hence, both person-time as well as outcome events from these patients are not included in the 3 mentioned studies. This may well deceptively bias the results toward lower event rates and, thus, explain some of the discrepancies of annual stroke rates between these 3 studies and the results found in the current meta-analysis.1

We have previously shown that AF patients with a CHA2DS2-VASc score of 1 (males, 2 for females) have a positive net clinical benefit from OAC compared with no treatment.1 Thus, stroke prevention (ie, OAC) should be considered for patients with ≥1 additional stroke risk factor (beyond female sex), given the profound benefits in stroke and mortality reduction.

Disclosures

Dr Nielsen report speaker for Boehringer Ingelheim. Dr Lip report guideline membership/reviewing for various guidelines and position statements from ESC, EHRA, NICE, Steering Committee/trial investigator for various Phase II and III studies, Health Economics & Outcomes Research; and consultant and speaker for Bayer/Jensen J&J, Astellas, Merck, Sanofi, BMS/Pfizer, Biotronik, Medtronic, Portola, Boehringer Ingelheim, Microlife, and Daiichi-Sankyo. Dr Larsen report investigator for Janssen Scientific Affairs, LLC, and Boehringer Ingelheim; speaker bureaus for Bayer, BMS/Pfizer, Roche Diagnostics, Boehringer Ingelheim, and Takeda Pharma.

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Stroke. 2016;47:e193; originally published online June 9, 2016;
doi: 10.1161/STROKEAHA.116.013672

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