Letter to the Editor

Hemorrhagic Transformation After Acute Ischemic Stroke in Atrial Fibrillation Patients

We read with interest the study by Ge, Wan-Qian et al.[1] One of the results from the study was that the risk of hemorrhagic transformation (HT) was higher in patients with atrial fibrillation (AF).

First, there seems to be a significant difference in the proportion of AF patients in the hypertensive and the nonhypertensive groups ($P < .001$).[1] Indeed, AF remains the most common cause of cardioembolic stroke[2] and HT is more common in patients with acute cardioembolic stroke.[3] Although the study,[1] brings out the significant relationship between AF and HT, we would like to emphasize the importance of prevention of HT in AF patients on anticoagulation. It is entirely plausible that a significant number, if not all the patients with AF might have been on anticoagulant therapy. This is of importance, as anticoagulation seems to increase the risk of HT.[4,5] Current guidelines suggest that AF patients with a CHA_2DS_2Vasc score of ≥ 2 ought to be anticoagulated.[6] Additionally, adjusting for HAS-BLED scores in future studies will ensure a comparable risk group of patients. The HAS-BLED score is used to assess the 1-year risk for major bleeding in patients with AF.[7] It is also unknown, if AF patients with similar HAS-BLED scores have the same increased risk as in this study.[1]

Second, the role of hemorrhagic small vessel neuroimaging markers like cerebral microbleeds (CMBs) might be of interest. A recent study suggests that CMBs are an independent predictor of HT following intravenous thrombolytic therapy.[8] This is of significance because, in the absence of thrombolytic therapy, the effect of CMBs appears to be equipoise.[8]

Future studies exploring the relationship among AF, anticoagulants, intravenous thrombolytics and risk of HT in a comparable risk cohort of patients might potentially elucidate this complex interaction.

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