Abstract: 3053

High mortality in atrial fibrillation patients suffering ischemic stroke, intracranial hemorrhage or a gastrointestinal bleed and associations with the preceding antithrombotic treatment

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Topic(s):
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Background: Anticoagulation treatment reduces the risk of stroke but increases the risk of bleeding in atrial fibrillation (AF) patients. There is little data on survival after a stroke or a severe bleed.

Objective: To analyze 90-day mortality in AF patients after an ischemic stroke, an intracranial hemorrhage (ICH) or a gastrointestinal bleed (GIB) and assess associations with the type of antithrombotic treatment preceding the event.

Methods: From the Stockholm Healthcare database (n = 2.3 million inhabitants) we selected all AF patients suffering from an ischemic stroke, an intracranial bleed, or a severe GIB requiring acute hospital care between July 2011 and August 2018 and assessed 90-day mortality rates. We assessed current use of warfarin, non-vitamin K oral anticoagulants (NOAC), or antiplatelet agents at the time of the event. We used a Cox regression to calculate adjusted hazard ratios (aHRs), adjusting for components of the Charlson Comorbidity Index, the CHA2DSVAsc score, the HAS-BLED score, comedication, and year of inclusion, for the association between treatment preceding the event and mortality. In addition, we performed log-rank tests in propensity score matched cohorts.

Results: Of 105,313 patients with AF, 6,017 were included after an ischemic stroke, 3,006 after an ICH, and 4,291 after a GIB. 90-day mortality rates were 25.1%, 31.6% and 16.2%, respectively. Patients suffering from an ischemic stroke were the oldest at 81.6 ± 9.8 (S.D.) years of age followed by patients suffering from an ICH (80.2±9.8 years) or a GIB (78.7±10.5 years). A large proportion of patients suffering ischemic stroke (72%) had no anticoagulant treatment preceding the event. After ICH, there was a significantly increased risk of mortality in warfarin compared to NOAC treated patients after adjusting for confounders (aHR: 1.36 CI: 1.04 – 1.78). Patients receiving antiplatelets or no treatment had significantly higher mortality rates than patients on NOAC treatment, both after an ischemic stroke and a GIB, but there was no significant difference between warfarin and NOACs (aHR 0.84 CI: 0.63 – 1.12 after ischemic stroke, aHR 0.91 CI: 0.66 – 1.25 after GIB). Propensity score matched analyses yielded similar results.

Conclusion: Mortality rates are high in AF patients suffering from an ischemic stroke, an ICH, or a GIB. NOAC treatment was associated with a lower 90-day mortality after ICH than warfarin, but no such difference was found after ischemic stroke or GIB. After ischemic stroke and GIB, mortality rates were higher in antiplatelet treated and untreated patients compared to NOAC treated patients.
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