The risk of falling and falling consequences in patients with atrial fibrillation receiving different types of anticoagulant drugs

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Objective: To investigate predictors of falling requiring visit to emergency department in patients with non-valvular atrial fibrillation (AF) receiving different types of anticoagulants, as well as to investigate clinical consequences of falling in the same population.

Patients and Methods: A total of 1,217 patients with non-valvular AF from two institutions were retrospectively evaluated. Physical examination, clinical history and medications profile were obtained from each patient at baseline.

Results: Median age of our cohort was 71 years. There were 52.3% males and 86.1% patients were receiving anticoagulation at the study baseline. Freedom-from-falling 5-year rate was 81.6%. Use/type of anticoagulation was not significantly associated with the risk of falling (P=0.222), whereas higher Morse-Fall-Scale (MFS), CHA2DS2-VASC and HAS-BLED scores were significantly associated with the higher hazard of the first fall in univariate analyses. In the multivariate Cox-regression model MFS, older age, osteoporosis, higher HDL-cholesterol, higher diastolic-blood-pressure, use of amiodarone, use of diuretics, and use of short and medium-acting benzodiazepines were identified as mutually independent predictors of the first fall. A total of 93/163 (57%) patients suffered a bone fracture during the fall. Type of anticoagulation significantly affected survival after the first fall (P<0.001) with patients inadequately anticoagulated with warfarin experiencing worse and patients receiving apixaban and dabigatran experienced best survival after the first fall.

Conclusion: Older patients with comorbidities, taking amiodarone, diuretics, and short and medium acting benzodiazepines are under highest risk of falling. Type and quality of anticoagulation do not seem to affect the risk of falling but significantly affect survival after the first fall.

LITERATURE: