Abstract: P3782

Frailty to predict unplanned hospitalizations, stroke, bleeding and death in atrial fibrillation

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On behalf: The Swiss-AF investigators

Topic(s): Atrial Fibrillation - Epidemiology, Prognosis, Outcome

Citation:

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Swiss National Science Foundation; Foundation for Cardiovascular Research Basel; University of Basel

Aim: We investigated the prevalence of frailty, and the relationships between frailty and the risk of adverse clinical outcomes in patients with atrial fibrillation (AF).

Methods: Patients with known AF were enrolled in a nation-wide observational cohort study in Switzerland. Information on medical history, medication, lifestyle factors and clinical measurements were obtained. The primary outcome was unplanned hospitalizations, secondary outcomes were all-cause mortality, bleeding and stroke. The frailty index (FI) was measured using a cumulative deficit approach according to previously published criteria. Participants were divided into three groups (non-frail, pre-frail and frail) according to their FI at study entry. The association between frailty and clinical outcomes was assessed using multivariable adjusted Cox proportional hazard models.

Results: We included 2369 patients with a mean age of 73±8 years (27.3% female). The prevalence of frailty and pre-frailty was 10.6% and 60.7%, respectively. Frailty was associated with unplanned hospitalization (adjusted hazard ratio [HR] 3.59; 95% confidence interval [95% CI], 2.78-4.63; p<0.001), all-cause mortality (adjusted HR 16.72; 95% CI 7.75-36.05; p<0.001), bleeding (adjusted HR 2.46; 95% CI 1.61-3.77; p<0.001), and stroke (adjusted HR 3.29; 95% CI 1.29-8.39; p=0.01) (Figure). Similarly, pre-frailty was significantly associated with unplanned hospitalization (adjusted HR 1.82; 95% CI 1.49-2.22; p<0.001), all-cause mortality (adjusted HR 5.07; 95% CI 2.43-10.59; p<0.001) and bleeding (adjusted HR 1.53; 95% CI 1.11-2.13; p=0.01), but not with stroke.

Conclusion: In our cohort, more than two thirds of AF patients were either pre-frail or frail. These patients have a high risk of unplanned hospitalizations and other adverse outcomes, indicating that frailty is a powerful tool to predict adverse clinical outcomes in AF patients.
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