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Atrial fibrillation related symptoms and cardiovascular outcomes

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Background: Comprehensive information on the impact of atrial fibrillation (AF)-related symptoms and quality of life (QoL) on adverse outcomes is sparse.

Purpose: We aimed to investigate whether AF-related symptoms and/or QoL are associated with cardiovascular outcomes in a large cohort of AF patients.

Methods: A total of 3902 participants with documented AF from two nationwide prospective cohort studies in Switzerland were included. Information on AF-related symptoms was assessed yearly by standardized questionnaires, QoL was quantified using a visual analog scale (0–100, with higher scores indicating better QoL). The primary endpoint was a composite of stroke and systemic embolism. The secondary endpoint was a composite of cardiovascular death, hospitalization for heart failure and myocardial infarction. We assessed associations using multivariable, time-updated Cox proportional-hazards models including age, sex, study cohort, history of heart failure, hypertension, diabetes, prior stroke, prior myocardial infarction, vascular disease and prior catheter ablation for AF as covariates.

Results: Mean age was 72 years, and 72% were male. The median QoL score was 75 points, and 2572 (66%) participants had AF-related symptoms. Symptomatic individuals were younger (71 vs 75 years) and had more often paroxysmal AF (29 vs 23%) (p for both <0.001). The most frequent symptoms were palpitations (42%), dyspnea (25%) and fatigue (18%). In multivariable, time-updated models, the hazard ratio (HR) was 1.24 (95% confidence intervals (CI) 0.72; 2.11, p=0.43) for the primary endpoint and HR 0.83 (95% CI 0.65; 1.06, p=0.14) for the secondary endpoint in symptomatic vs non-symptomatic individuals. There was a significant, inverse association for a 5-point increase in the QoL score with both the primary (HR 0.94 (95% CI 0.88; 0.99), p=0.04) and secondary (HR 0.91 (95% CI 0.88; 0.93), p<0.0001) endpoints.

Conclusions: AF-related symptoms are not associated with adverse cardiovascular events in AF patients. In contrast, QoL is inversely associated with to adverse cardiovascular outcomes.