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OnBehalf: the GeroCovid Investigators

Introduction. Atrial fibrillation (AF), the arrhythmia most frequently diagnosed in older patients, associates with serious, thrombo-embolic, complications and high mortality. COVID-19 severely affects aged subjects, determining an important prothrombotic status.

Purpose. Aim of this study was to evaluate mortality-related factors in older AF patients with COVID-19.

Methods. We included 806 in-hospital COVID-19 patients aged 60 years or more hospitalized between March 1st and June 6th 2020 and enrolled in a multicenter observational study.

Results. The prevalence of AF was 21.8%. In-hospital mortality was higher in the AF group (36.9 vs. 27.5%; p = 0.015). Among AF patients, those who survived were younger (81 ± 8 vs. 84 ± 7 years; p = 0.002), had a lower CHA2DS2-VASc score (3.9 ± 1.6 vs. 4.4 ± 1.3; p = 0.02) and were more frequently treated with oral anticoagulants at admission (63.1 vs. 32.3%; p < 0.001) than those who died in hospital. At multi-variable logistic regression analysis, lower age (p = 0.042), a better functional profile (p = 0.007), less severe COVID-19 manifestations at admission (p = 0.001), and the use of Vitamin K antagonists (OR = 0.16, 95%CI: 0.03-0.84; p = 0.031) or DOACs (OR = 0.22, 95%CI: 0.08-0.56; p = 0.002), compared to antiplatelet therapy or no treatment at all, were associated with a lower chance of in-hospital death.

Conclusions. AF is a prevalent condition and a severity factor in older COVID-19 patients. Advanced age, dependency and severe clinical manifestations of disease characterized older AF subjects with a worse prognosis. Interestingly, pre-admission anticoagulant therapy correlated positively with in-hospital survival.