Statins under-treatment and mortality in patients with atrial fibrillation. Insights from the nationwide START registry

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Background: Statins are mainstream drugs for cardiovascular (CV) prevention, but under-prescription is an important clinical challenge. Data on the use of single statins as the rate of under-prescription in atrial fibrillation (AF) are lacking. To evaluate the association of statin underuse with mortality risk in a large AF cohort.

Methods: 5,477 patients from the nationwide START registry were included. The prevalence of different statins was reported and the association with all-cause and CV mortality investigated. Mortality risk of patients with an indication to but not taking statins was also analysed.

Results: Mean age was 80.2 years, 46.4% were women. Among 2,899 patients with a clinical indication to statin, only 1,578 (54.4%) were on treatment. In a mean follow-up of 22.5±17.1 months, 491 (4.7%/year) deaths occurred (106 CV deaths, 1.0%/year). Atorvastatin and Simvastatin inversely associated with all-cause (HR 0.692, 95%CI 0.519-0.923, p=0.012 and HR 0.598, 95%CI 0.428-0.836, p=0.003, respectively) and CV death (HR 0.372, 95%CI 0.178-0.776, p=0.008 and HR 0.306, 95%CI 0.123-0.758, p=0.010, respectively).

The 1,321 untreated patients were older, more frequently women and with a higher prevalence of diabetes, previous cerebrovascular disease, peripheral artery disease compared to those on treatment. Statin undertreatment was associated with higher risk of all-cause (HR 1.565, 95%CI 1.235-1.983, p<0.001) and CV death (HR 2.057, 95%CI 1.188-3.561, p=0.010).

Conclusions: AF patients with an indication to statins but left untreated disclose a high risk of all-cause and CV mortality. Implementation of statin prescription in the AF population can help reducing the residual CV risk.