Prognosis of atrial fibrillation with or without comorbidities. Analysis of younger adults from a nationwide database


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Background: “Lone AF” may be defined as AF in younger adults (age < 60 years) and lack of obvious associated CV or extra CV conditions. However, current ESC guidelines indicate that the term of “Lone AF” is potentially confusing and should be abandoned because a cause may be present in every patient. In addition, studies on prognosis of “Lone AF” are inconsistent, likely as the result of the heterogeneity in definitions, comorbidities, study population and duration of follow-up. We aimed to assess the prognosis of patients with AF with or without cardiac or extra cardiac concomitant conditions.

Participants and methods: From the French administrative hospital-discharge PMSI database (Programme de Médicalisation des Systèmes d’Information) covering hospital care and representative of the whole French population, all consecutive patients with AF diagnosis hospitalized between 2011 and 2020 were identified. Patients were classified into four groups: 1) > 60 yo; 2) with known cardiac disease (KCD group); 3) with extra cardiac comorbidities (ECC); and 4) AF without KCD or ECC (“Lone AF”).

Results: Altogether 2,435,541 patients were identified, from which 2203,702 patients aged > 60 years and 231,839 patients aged < 60 years [with KCD (55.2%), with ECC (14.7%) and with “Lone AF” (30.1%)]. During follow-up the incidences of all-cause and CV deaths were 13.7%, 5.7%, 6.2% and 2.3%, and 4.2%, 1.7%, 0.8% and 0.3% in the older than 60 yo group, KCD group, ECC group and “Lone AF” AF group, respectively. In the age and sex-adjusted analysis (patients < 60 yo), patients with AF and KCD had worse outcomes than patients with “Lone AF” for all major cardiac events (see figures).

Conclusion: There are three distinct prognostic criteria based on the presence or not of HD or extra cardiac concomitant comorbidities. Patients in the so-called “Lone AF” group remain severe in terms of CV events but still with a lower incidence than the patient with associated KCD or ECC. The presences of KCD or ECC make it possible to distinguish a profile in terms of events that are very different from the patients.