Atrial fibrillation in elderly patients with syncope and dementia: clinical insights from a large multicenter Italian registry

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Background: Syncope and dementia have a high prevalence in elderly individuals. Atrial fibrillation (AF) frequently occurs at advanced age. The coexistence of these conditions can be indicative of a clinically relevant frail status.

Purpose: The aim of this study was to evaluate the characteristics and the long-term outcome of AF patients with dementia and a history of syncope.

Methods: We evaluated the Syncope and Dementia (SYD) Registry. Data were collected by 11 Geriatric Departments between 2012 and 2016. Follow-up was closed at the 12-month evaluation.

Results: During the study period, 522 patients (women – 324, 62.1%; MMSE: 17±6) were enrolled. Of these 138 (26.4%) have or presented a history of AF. Patients with AF were older (85±6 vs. 83±6 years, p=0.012), with a higher heart rate (78±17 vs. 73±14 bpm, p<0.001), had a more complex clinical picture with an increased number (3.9±2.0 vs. 3.0±1.8, p<0.001) and severity (1.8±0.3 vs. 1.6±0.4, p<0.001) of comorbidities, as assessed with the Cumulative Illness Rating Scale. In particular, the prevalence of diabetes (28.3 vs. 20.1%, p=0.047), heart failure (13.8 vs. 7.3%, p=0.023) and stroke/TIA (26.1 vs. 17.7%, p=0.035) was higher in patients with the arrhythmia. Cardiac syncope was more frequently diagnosed at the final evaluation (18.8 vs. 4.9%, p<0.001). Even if the use of antipsychotics (13.0 vs. 27.6%, p=0.001) and cholinesterase inhibitors (6.5 vs. 16.4%, p=0.004) were less used in AF subjects, the total number of prescribed drugs was higher (6.9±2.9 vs. 5.9±2.7, p<0.001). At multivariate analysis (overall predictivity: 75%), AF patients were characterized by advanced age (p=0.041), a higher severity of comorbidities (p<0.001), a greater number of drugs (p=0.020), an increased heart rate (p=0.004) and a more frequent presence of cardiac symptoms (p=0.049). At one-year follow-up (8 patients lost), the mortality rate in AF patients was 27.7% (N=38/138). Deceased patients presented a greater degree of disability (number of lost activities of daily living: 3.7±2.3 vs. 2.8±1.9, p=0.020) and a higher heart rate at baseline (85±17 vs. 76±15 bpm, p=0.006). Multivariate analysis (overall predictivity: 74%) confirmed the association of disability (p=0.039) and heart rate (p=0.045) with prognosis.

Conclusions: AF is frequently present in patients with dementia and a history of syncope. It is usually associated with a more complex clinical picture and high long-term mortality. Heart rate and a higher degree disability seem to be related to prognosis.