

P4133

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

A. Ceccofiglio<sup>1</sup>, S. Fumagalli<sup>1</sup>, E. Mossello<sup>1</sup>, C. Mussi<sup>2</sup>, M. Bo<sup>3</sup>, A.M. Martone<sup>4</sup>, G. Bellelli<sup>5</sup>, F. Nicosia<sup>6</sup>, D. Riccio<sup>7</sup>, A. Langellotto<sup>8</sup>, G. Tava<sup>9</sup>, V. Boccardi<sup>10</sup>, E. Tonon<sup>1</sup>, P. Abete<sup>11</sup>, A. Ungar<sup>1</sup>

<sup>1</sup>University of Florence, Florence, Italy; <sup>2</sup>University of Modena & Reggio Emilia, Modena, Italy; <sup>3</sup>Hospital Citta Della Salute e della Scienza di Torino, Turin, Italy; <sup>4</sup>Catholic University of the Sacred Heart, Rome, Italy; <sup>5</sup>University of Milan-Bicocca, Monza, Italy; <sup>6</sup>Civil Hospital of Brescia, Brescia, Italy; <sup>7</sup>University of Cagliari, Cagliari, Italy; <sup>8</sup>Hospital Santa Maria di Ca Foncello, Treviso, Italy; <sup>9</sup>Santa Chiara Hospital in Trento, Trento, Italy; <sup>10</sup>Hospital Santa Maria Della Misericordia, Perugia, Italy; <sup>11</sup>Federico II University Hospital, Naples, Italy

**Funding Acknowledgement:** None

**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 diag-

nosed 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=36/130). 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.