Assessment of atrial fibrillation in emergency department

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Introduction: Atrial Fibrillation (AF) is the most common arrythmia, especially in older adults. AF represents 1% of emergency department (ED) visits a third of which are de novo or recurrent. While the diagnosis is given quickly by reading the electrocardiogram (ECG), its management both remains complex. European guidelines have been published in 2016.

Purpose: Our study aimed to investigate guidelines implementation in French ED.

Methods: Prospective national multicenter study (clinical trials NCT 03836339) and core interpretation of ECG. Consecutive patients admitted in 32 French ED for AF confirmed by ECG were prospectively included. Clinical characteristics at admission were recorded by the physician. The 3-months telephone follow-up was ensured by one operator.

Results: From 1/10/2018 to 30/11/2018, 1369 patients with AF were included, of whom 295 (21.55%) had a de novo AF. Patients were 80 [65; 87] years old, 51.17% of men, 71.53% self-ruling, 91.53% living at home, 65.42% transported by firemen or by ambulances and 4,07% by a mobile intensive care unit. Twenty-six (8.84%) patients had a history of stroke or transient ischemic stroke and none of them on anticoagulants. CHA2DS2-VASC score was performed in 66.78% of patients and was 0 in 14 (7.11%) patients. HAS-BLED score = 2 [1; 3]. At admission 50.17% of patients received anticoagulants, of whom 49.32% a non-vitamin K antagonist oral anticoagulant, 0.68% Vitamin K antagonists, 50.68% UFH or LMWH. Beta-blockers were administered in 102 (24.01%) patients and amiodarone in 38 (12.89%). Cardiac echography has been performed in 20.34% of patients. Atrial fibrillation was the primary diagnosis in 42.71% of patients. It has been associated to a pneumopathy in 25.17% of patients, a pulmonary embolism in 4.76% and acute alcoholism in 1.36% of them. Precipitating factor was often undetermined. The discharge to the home concerned 18.64% of patients, 26.78% of patients were hospitalized in ED hospitalization unit, 23.05% in cardiology or intensive care unit. At 3 months, 49% of patients were on anticoagulants, of whom 90% on non-vitamin K antagonist oral anticoagulants, 95% of them didn't report any bleeding event and 41.77% of them were able to have a cardiology consultation within three months. Three-months mortality was about 22.09%, and rehospitalization rate about 22.89%.

Conclusion: It seems to be a reticence to initiate anticoagulation of patients admitted to ED with a de novo AF. It could be explained by both the advanced age of the patients and the lack of an organized access to a systematic cardiology consultation at discharge. Patients with chronic AF are subject to high mortality at 3 months and a significant risk of readmission. The application of the guidelines could be optimized by a better training program and the implementation of a dedicated pathway of care.