

Should we keep performing electrical cardioversion in atrial fibrillation/flutter?

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INTRODUCTION AND PURPOSE

Atrial fibrillation (AF) and **atrial flutter (AFL)** are frequently diagnosed arrhythmias in the outpatient setting and in the Emergency Department. Electrical and pharmacological cardioversion are therapeutics options when a rhythm control strategy is pursued¹, but are associated with a non-negligible **periprocedural risk of thromboembolic events**². Our study aims to evaluate the clinical outcomes of patients with AF/AFL referred to electrical cardioversion (EC) and to analyse the procedures' complications.

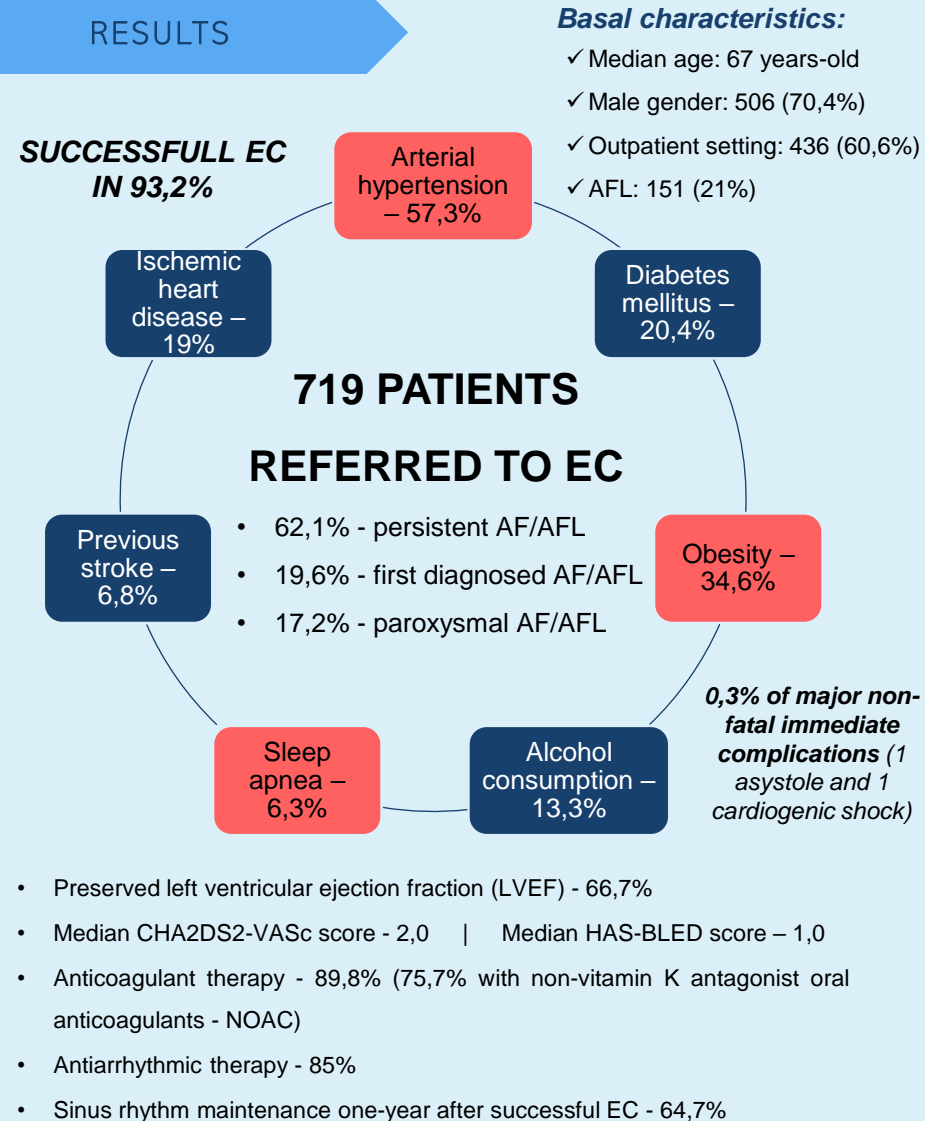
METHODS

- Retrospective study;
- **Population:** patients with AF/AFL referred to EC in our Cardiology Department, from September 2011 to September 2020;
- We analysed clinical characteristics, echocardiographic studies and follow-up data;
- **Primary endpoint** was the incidence of ischemic stroke during follow-up;
- **Secondary endpoints** were the occurrence of major non-fatal immediate complications and the reversal of left ventricular dysfunction after EC.



RESULTS

SUCCESSFUL EC IN 93,2%



After EC, it was documented complete reversal of LV systolic dysfunction in 46,3% of patients with previously reduced LVEF, confirming the diagnosis of **arrhythmia-induced cardiomyopathy (AIC)**.

Ischemic stroke occurred in 4,8% of patients during a median follow-up of 1355 days, but only 5 patients had an event in the first week after EC (0,7% stroke rate at 1-week and at 1-month).

AIC was associated to a **lower rate of cardiovascular death** (3,8% vs 25,5%; p=0,002), comparing to patients who did not recover LV function.

CONCLUSIONS

EC is a **safe procedure**, with a very low rate of immediate and embolic complications. Ischemic stroke directly related to EC occurred during **the first week** after the procedure. NOAC are safe and effective alternatives to vitamin K antagonists and patients should be advised to **comply with anticoagulant therapy**^{1,2}. AIC was diagnosed in 46,3% of patients with previously reduced LVEF and it was associated with a significantly **lower rate of CV death**. EC should be considered to relieve patients' symptoms and when there is suspicion of AIC.