

# PREDICTORS OF EVENTS AFTER TYPICAL ATRIAL FLUTTER ABLATION

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## INTRODUCTION

Cavotricuspid isthmus ablation (CTA) is the main treatment for rhythm control in patients with typical atrial flutter (AFL). Although there is an established risk for embolic events in atrial fibrillation, the results are not standardized for typical AFL and anticoagulation in AFL pts submitted to CTA is not consensual.

## PURPOSE

To determine the incidence and predictors of major cardiovascular events (MACE) of pts with typical AFL submitted to CTA.

## METHODS

- Retrospective study of pts submitted to CTA between 2015 and 2019
- Comprising 3 groups:

**Group I** - patients with lone AFL

**Group II** - patients with AFL and prior AF submitted to CTA only

**Group III** - patients with AFL and prior AF submitted to IVP and CTA

Clinical records were analysed to determine the occurrence of MACE during follow up (defined as: death of cardiovascular or unknown cause, stroke, clinically relevant bleeding or hospitalization due to heart failure or arrhythmic events).

Kaplan Meier curves were used to estimate the risk of events and the groups were compared using uni and multivariate Cox regression analyses.



**476 patients** (  $66 \pm 12$  years, 80% males) underwent CTA:

**Group I** - 284 pts (60%)

**Group II** - 109 pts (23%)

**Group III** - 83 pts (17%)

## RESULTS

Baseline characteristics were similar between groups, except for age with group I being older ( $68 \pm 12$ ,  $67 \pm 11$ ,  $61 \pm 11$ ,  $p < 0.03$ )

Hypertension (70%)

Dyslipidemia (54%)

Heart failure (28%)

- only 5% with LVEF < 30% and 12% with LA > 50ml/m<sup>2</sup>

Palpitations (70%)

Mild symptoms (71%)

- Mean follow-up of 2.8 years
- The incidence of MACE was 102 (21%) - 54 pts (12%) died from CV death, 20 pts (5%) had stroke, 13 pts (4%) had a relevant bleeding event, and 51 pts (11%) were hospitalized due to HF or arrhythmic events.

On *univariate analysis*:

Arterial peripheral disease ( $p = 0.018$ )

Hypertension ( $p = 0.046$ )

Chronic kidney disease (CKD,  $p < 0.001$ )

Chronic pulmonary disease ( $p = 0.024$ )

Heart failure ( $p < 0.001$ )

Cerebrovascular disease ( $p = 0.029$ )

Body mass index ( $p = 0.01$ )

Age ( $p < 0.001$ )

CHADsVASc ( $p < 0.001$ )

LA diameter ( $p = 0.01$ )

Associated with MACE occurrence

However, only age (HR 1.073; 95%CI 1.03-1.06,  $p < 0.001$ ) and CKD (HR 0.37; 95%CI 0.186-0.765,  $p = 0.007$ ) were independent predictors of MACE.

## CONCLUSION

In our cohort with AFL, stroke and bleeding occurred in a minority of patients.

Age and CKD predicted MACE during follow-up.