

# NOT A COLD SUCCESS - EFFICACY OF CRYOABLATION

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## Introduction

**Atrial fibrillation (AF)** is the most common supraventricular arrhythmia with considerable morbidity. Emerging evidence supports rhythm control and cryoablation has been gaining ground over traditional point-to-point (PtP) ablation. Predictors of relapse after cryoablation are not completely established.

## Aim

To evaluate the **efficacy of cryoablation** and determine factors that might explain the risk of relapse.

## Methods

Single center prospective study evaluating AF patients (pts) refractory to antiarrhythmic therapy who performed first AF ablation procedure. The ablation strategy consisted of pulmonary vein isolation complemented with ablation of the cavo-tricuspid isthmus in patients with a history of concomitant flutter. Pts were monitored with Holter/7-day event loop recorders (3, 6, 12 months and annually up to 5 years). **Success was considered from the 90<sup>th</sup> day after ablation, with the absence of recurrences of any sustained atrial arrhythmias (> 30 sec).**

## 232 patients submitted to cryoablation

68.1% male; 59,6±12.4 years old  
Mean follow-up 927,9 days

Hypertension 65,9%

Structural cardiomyopathy 15,5%

Obstructive sleep apnea 24,8%

Mean left atrium indexed volume 41,0 ± 2,7mL2

## Success rate

1 year: **89.6%**

3 years: **87.6%**

## Results

Twenty-one patients had supraventricular arrhythmia relapse after one year and 25 after three years of follow-up. In those who underwent additional REDO procedures, the success rate rose to 95.5% and only 9 patients had relapse after one year. After the procedure 30.2% patients suspended anti-arrhythmic drugs, and it is noteworthy that it was not a factor contributing to relapse.

In the general population, hypertension was linked to increased risk of relapse ( $p=0.043$ ), though other factors, such as diabetes, obesity or OSA, did not seem to increase the risk. A group sub-analysis to determine the risk of relapse showed that CHADsVASC score, age, sex and left atrium indexed volume were non-predictors of supraventricular arrhythmia relapse rate.

## Conclusion

Our analysis showed that **cryoablation is an effective procedure** with very high rates of success after one and three years. Hypertension was identified as increasing the risk of relapse unlike other factors, supporting the importance of **cardiovascular risk factors control after the procedure.**