Can anticoagulation be ceased post successful AF ablation: Late occurrence of thromboembolic events

Melissa Middeldorp  
Adrian Elliott  
Dennis Lau  
Prashanthan Sanders

**Introduction**: Thromboembolic stroke remains the most devastating complication of atrial fibrillation (AF). Whether elimination of AF by catheter ablation reduces this risk of stroke is not known. The aim of this study was to characterize the stroke risk following AF ablation in a large single centre prospectively collected cohort.

**Methods**: A total of 700 consecutive patients underwent AF ablation with 628 having a minimum 12 months follow-up and were included in the analysis. Events and AF recurrence were followed by clinical assessment, ECG, and 7-day Holter/cardiac implantable electronic device interrogation every 3 months for the first year and 6 monthly thereafter. AF freedom was defined as absence of atrial arrhythmia lasting $>30$ sec after a 3 month blanking period, without the use of anti-arrhythmic agents. Anticoagulation was ceased at 3 months in all patients with CHADS score of $<$2, all other patients were at the discretion of the physician based on the absence of arrhythmia.

**Result**: Median follow-up was 2411 [365-4645] days. Mean age of the cohort was 66±11, 419 were male. Of the 628 patients a total of 15 (2.4%) presented with thromboembolic event following AF ablation. Two (13%) occurred within 12 months of ablation; a further 5 (27%) within 1-2 years and 8 (60%) $>2$ years after ablation. There were 9 (60%) patients who experienced an event in the absence of arrhythmia following successful ablation, having a median of 1176 [504-13870] hours of monitoring for asymptomatic arrhythmias.

**Conclusion**: Successful AF ablation and the absence of AF does not abolish the risk of stroke. In this study a significant number of events occurred in the absence of arrhythmia, with majority of these events occurring very late following successful ablation. Further studies are needed to determine the ideal strategy of anticoagulation management following successful AF ablation.