SHOULD ANTI-ARRHYTHMICS BE HELD PRIOR TO ATRIAL FIBRILLATION ABLATION?

ACC Poster Contributions
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Background: The decision to continue or hold anti-arrhythmic (AA) medications prior to atrial fibrillation (AF) ablation is not standardized. The purpose of this study is to compare the outcomes of AF ablation according to AA drug status.

Methods: 180 consecutive patients who underwent their first catheter ablation of AF at our center were studied. This population was divided into two cohorts: those on AA at the time of ablation (127 patients, mean follow up 24.6 months) and those off AA at the time of ablation (53 patients, mean follow up 20.3 months). Off AA was defined as no AA in the previous week, or in the case of amiodarone, none in the last 90 days. All ablations were done using a wide area circumferential radiofrequency ablation of the pulmonary veins, followed by lasso guided segmental isolation. Only single procedure results are presented. Recurrent AF was defined as patient reported palpitations, or ECG and/or holter identified AF. Patients who underwent redo procedures were counted as failures.

Results: There were no statistically significant differences in the baseline characteristics between cohorts (On vs. Off AA: 20% vs. 23% female, mean age 58 vs. 59 years, duration of AF 6.3 vs. 6 years, 45% vs. 42% persistent AF, 55% vs. 58% paroxysmal AF, all p > 0.3). During the initial 3 month blanking period, the rate of recurrent AF was 45% in the On AA group and 43% in the Off AA group (p = 0.42). At 3-12 months post ablation, the rate of recurrent AF was 49% in the On AA group and 43% in the Off AA group (p = 0.24). At 13-24 months it was 59% in the On AA group and 48% in the Off AA group (p = 0.23). After 24 months, the rate of recurrence was 63 % and 51 % in the On AA and Off AA groups respectively (p = 0.14). The proportion of patients who underwent a redo ablation was 24% in the On AA group and 21% in the Off AA group (p = 0.32)

Conclusion: There was no statistically significant difference in the rate of AF recurrence between the On AA and Off AA groups, though there was a clear trend towards better outcomes in the Off AA group as the time from ablation increased. This may be due to AA treatment masking pulmonary vein potentials leading to suboptimal pulmonary vein isolation. Further randomized clinical trials are needed in this important area.