COMPARISON OF LONG TERM STROKE OR TIA RISK BETWEEN PATIENTS WITH ATRIAL FIBRILLATION WHO UNDERGO RADIOFREQUENCY CATHETER ABLATION VS. MATCHED PATIENTS WHO HAVE NOT HAD AN ABLATION PROCEDURE

ACC Poster Contributions
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Background: Evidence informing the role of radiofrequency catheter ablation (RFCA) in the care of patients with AF is growing rapidly, but little is known about long-term outcomes, particularly in regards to the incidence of stroke or TIA. The objective of this study was to compare long term safety for a propensity matched sample of ablation and non-ablation patients with AF.

Methods: We performed a retrospective cohort analysis of the incidence of stroke/TIA in AF patients who underwent RFCA compared to those that were treated with at least two different rhythm-control medications but no ablation. We used a coding algorithm to identify 3,194 RFCA patients and 6,028 non-ablation patients from the Thomson Reuters MarketScan® Research Database. This database contains individual-level claims information from employers, health plans, hospitals, Medicare, and Medicaid. The analytic start date for the RFCA patients was the date of their first ablation and for non RFCA patients it was the date of their second rhythm control medication fill. From this sample, 801 pairs were propensity matched based on 15 characteristics, which included patient demographics, comorbid conditions, medication usage and prior stroke/TIA. The primary outcome measure was a record of stroke or TIA at any time up to 3 years.

Results: Kaplan Meier analysis in the propensity matched pairs demonstrated a significant reduction in stroke/TIA rates for RFCA patients compared to non-ablation patients during the follow-up period. Preliminary findings include a multivariable Cox proportional hazards model, which adjusted for covariates still statistically different after matching (time in the database, baseline diabetes mellitus, rate medication pre time zero), showing a reduction in stroke/TIA rates with RFCA hazard ratio of 0.664 [p=0.04, 95% CI (.45,.98)]. A second multivariable Cox proportional hazards model, which included an additional adjustment of prior stroke/TIA, revealed consistent findings; hazard ratio .695 [p=.07, 95% CI (.47,1.00)].

Conclusion: In this analysis, 801 propensity-matched pairs demonstrated a significant reduction in the risk of stroke/TIA in AF patients treated with RFCA.