



ACC.14

TCT@ACC-12 | innovation in intervention

A390

JACC April 1, 2014

Volume 63, Issue 12

Arrhythmias and Clinical EP

LEFT ATRIAL APPENDAGE LIGATION AND ABLATION FOR PERSISTENT ATRIAL FIBRILLATION (LAALA-AF REGISTRY)

Poster Contributions

Hall C

Sunday, March 30, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Arrhythmias and Clinical EP: New Insights for Ablation of Atrial Fibrillation

Abstract Category: 4. Arrhythmias and Clinical EP: AF/SVT

Presentation Number: 1182-111

Authors: *Dhanunjaya R. Lakkireddy, Madhu Reddy, Arun Raghav Mahankali Sridhar, Jayasree Pillarisetti, Ryan Maybrook, Arun Kanmanthareddy, Matthew Earnest, Vijay Swarup, Donita Atkins, Sudharani Bommana, Jayant Nath, Ryan Ferrell, Buddhadeb Dawn, University of Kansas Medical Center, Kansas City, KS, USA*

Introduction: Left atrial appendage (LAA) isolation is known to be an important adjunctive therapy to improve outcomes of pulmonary vein isolation in patients with persistent AF. Percutaneous endo-epicardial LAA closure system (LARIAT) can result in both mechanical and electrical exclusion of the LAA and may potentially aid in improving the outcomes of ablation in persistent AF by eradicating the LAA triggers. We intended to evaluate the additional benefit of concomitant LARIAT procedure when added to conventional AF ablation.

Methods: In this prospective observational study, forty consecutive patients who underwent LARIAT procedure followed by AF ablation (group-I) were enrolled. Age, gender and type of AF matched patients undergoing only AF ablation served as the control (group-II). Recurrence of AF was measured during 1 year of follow up.

Results: The mean age of the population was 70 years with 24 (30%) females. Baseline characteristics including age, body mass index, left ventricular ejection fraction were similar in both the groups. Left atrial size was higher in the LARIAT group (5.1 vs 4.6; cm $p=0.006$). CHADS2 and CHA2DS2-Vasc scores were higher in the LARIAT group. The primary outcome of AF recurrence was lower in the LARIAT group (34% vs 55%, $p=0.025$) after the first ablation. Also, fewer patients in the LARIAT group needed repeat ablation (15% vs 35%, $p=0.04$).

Conclusions: LAA ligation with the LARIAT device appears to incrementally benefit in decreasing the recurrence of AF after AF ablation.

BASELINE CHARACTERISTICS	LARIAT + AF ABLATION	AF ABLATION ONLY	P-VALUE
Age	70.39	70.39	1
Height (cm)	169.2763	173.5789	0.45
Weight (kg)	94.5228	89.4737	0.34
Body Mass Index	30.4803	30.28	0.92
CHADS score	2.45	1.66	0.002
CHADS2VASc	3.61	2.74	0.004
Left Ventricular EF%	54.34	54.81	0.84
Left Atrial size	5.1	4.6	0.006
Coronary Artery Disease	16 (42.1)	8 (21.1%)	0.05
Hypertension	30 (78.9)	33 (86.8)	0.36
Diabetes Mellitus	15 (39.5)	13 (34.2)	0.63
Heart Failure	8 (21.1)	7 (18.4)	0.77
Chronic Obstructive Lung Disease	3 (7.9)	8 (21.1)	0.1
Stroke/ Transient Ischemic Attack	15 (39.5)	3 (7.9)	0.002
Gastro Intestinal Bleed	9 (23.7)	1 (2.6)	0.01
Sinus Node Dysfunction	12 (31.6)	6 (15.8)	0.2
OUTCOMES			
AF recurrence at 12 months after 1 st ablation	13 (32.5)	23 (57.5)	0.025
Repeat Ablation needed	6 (15.0)	14 (35.0)	0.04
Stroke	0 (0%)	1 (2.5%)	0.78