**OUTCOMES OF CATHETER ABLATION OF ATRIAL FIBRILLATION IN PATIENTS WITH DIABETES MELLITUS**

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**Objectives:** This study aims to determine the impact of Diabetes Mellitus on patients undergoing catheter ablation of atrial fibrillation in terms of procedural efficacy, clinical outcomes and complications.

**Methods:**  In this retrospective cohort study, we analyzed 271 consecutive patients with mean age of 61 years who underwent catheter ablation for either paroxysmal (73%) or persistent (26%) atrial fibrillation. 66 patients (24%) had known history of Diabetes Mellitus. We compared procedural and clinical outcomes between patients who had known Diabetes mellitus to those who did not.

**Results:** Procedural characteristics including ablation technique-Cryoablation (30.3% vs 37.4%), Radiofrequency ablation (63.6%vs 56.7%), mean duration of the procedure (278.1± 95.9 vs 268.7± 80.4 minutes, p=0.4284) fluoroscopy time (38.25± 21.1 vs 40.89± 22.8 minutes, p 0.41) and median radiation exposure (855±775 vs 861 ± 930, p=0.24) were similar. The occurrence of complications such as bleeding, pericardial tamponade, pneumothorax, infection, death, embolic events were similar in both groups. Amongst patients with available follow up, at 3 months, 27.8% with Diabetes Mellitus and 18.1% without had atrial fibrillation recurrence respectively (p=0.12). One-year recurrence rates were 43.9% and 32.1% respectively (p=0.1648). Relative risk of recurrence in patients with Diabetes Mellitus was 1.53(CI 0.90-2.62) at 3 months 1.37(0.9-2.1) at 1 year respectively.

**Conclusion:** Patients with Diabetes Mellitus showed a trend towards increased rates of atrial fibrillation recurrence at 3 months and 1 year, though our single center study did not attain statistical significance. Further studies with more patients and multiple sites are needed to characterize this risk.