

Outcomes of Catheter Ablation for Atrial fibrillation in Patients with Hypertrophic Cardiomyopathy

Lohit Garg MD

Lehigh Valley Health Network, lohit.garg@lvhn.org

Syed Rafay Ali Sabzwari MD

Lehigh Valley Health Network, Rafay.Sabzwari@lvhn.org

Ghulam Akbar MD

Lehigh Valley Health Network, ghulam.akbar@lvhn.org

Hiwot Ayele MD

Lehigh Valley Health Network, Hiwot.Ayele@lvhn.org

Sahil Agrawal MD

See next page for additional authors

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Authors

Lohit Garg MD, Syed Rafay Ali Sabzwari MD, Ghulam Akbar MD, Hiwot Ayele MD, Sahil Agrawal MD, Manyoo Agarwal MD, Jeffrey Gordon, Raman Dusaj MD, Talha Nazir MD, Babak Bozorgnia MD, and Matthew W. Martinez MD

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Department of Cardiology, Lehigh Valley Hospital, Allentown, PA

INTRODUCTION

- Atrial fibrillation (AF) is common in adult patients with hypertrophic cardiomyopathy (HCM) and is associated with increased morbidity and mortality.
- Approximately one-third of patients with HCM develop AF during their lifetime.
- Catheter ablation can be effective in reducing the burden of AF in HCM patients.
- However, there is paucity of data regarding the safety and outcomes of catheter ablation in these patients.

OBJECTIVE

- We intend to study the safety and in-hospital outcomes of catheter ablation for atrial fibrillation in patients with hypertrophic cardiomyopathy.

METHODS

- We queried the National Inpatient Sample (NIS) database to identify all adults patients > 18 years with HCM who underwent catheter ablation for AF between 2003-2013.
- Baseline demographics and clinical features were studied.
- The primary outcome of interest was all cause in-hospital mortality.
- The secondary outcomes of interest were bleeding complications, pericardial complications, iatrogenic cardiac injury, vascular complications, pneumothorax and neurologic complications.

RESULT

- We identified 1,468 HCM patients who underwent catheter ablation for AF between 2003-2013.
- The mean age of these patients was 62+/-15 years, 52 % were females, 67.4% were Caucasians, and 78.7% were performed in teaching hospital.
- 291 (19.8%) patients experienced procedure related complications, however in-hospital mortality was low (1.4%) (Table1).
- On multivariate analysis, age > 65 years (OR= 1.16; CI= 1.08-1.23; p<0.001), large hospital size (OR=1.44; CI=1.04-1.99; p=0.026), and teaching hospital (OR=1.34; CI= 1.14-1.50; p=0.002) were independent predictors of in-hospital complications.

Table 1: Complications associated with catheter ablation for AF in HCM patients

Outcome	AF ablation (1,468)
Death	20 (1.4%)
Bleeding complications	167 (11.3%)
Pericardial complications	28 (1.9%)
Iatrogenic cardiac injury	107 (7.3%)
Vascular complications	18 (1.3%)
Hemothorax/Pneumothorax	20 (1.4%)
Neurologic/Stroke/TIA	5 (0.3%)

AF: Atrial fibrillation; TIA: Transient Ischemic Attack

LIMITATIONS

- Retrospective design of the study and possibility of varying coding practices of the hospital.
- Medication and procedural success data is unavailable due to administrative nature of the database.
- Long term follow up data is unavailable.

CONCLUSION

- HCM patients undergo AF ablation at relatively young age.
- One-fifth of the HCM patients who underwent AF ablation experienced in-hospital complications while in-hospital deaths were rare.

DISCLOSURES

None of the authors have anything to disclose.