Ablation vs. Rate Control in Atrial Fibrillation and Heart Failure
Heather Fried RN, BSN
The Pennsylvania State University

In patients with concomitant atrial fibrillation and heart failure with a low ejection fraction, how does conversion to sinus rhythm with ablation compared to rate control therapy affect left ventricular function over one year?

BACKGROUND
- Atrial fibrillation (Afib) exacerbates heart failure (HF) increases mortality in HF patients, and reduces left ventricular function.
- Incidence of Afib in HF increases w/ advancing NYHA class; Afib prevalence ranges from 5% in patients w/ mild HF to 50% in patients w/ severe HF.
- Optimal therapy for Afib in HF is unknown.
- Unclear whether rate or rhythm control is more beneficial to maintain and/or improve cardiac function.

METHODS
- MeSH terms: “atrial fibrillation” AND “heart failure” AND “ablation” AND “rate control” AND “ejection fraction”

SYNTHESIS
- Most evidence supports use of ablation over rate control for improved ejection fraction (EF) in patients w/ Afib and HF.
- Achievement of sinus rhythm (SR) is associated with improved cardiac function.
- Ablation is superior to pharmacotherapy for maintenance of SR.
- Improvements in left ventricular function not statistically significant are attributed to failure of sustaining SR post ablation.
- It may take more than one ablation procedure to sustain SR.

LIMITATIONS
- Limited research with small sample sizes
- Inconsistent and low levels and quality of evidence
- Inconsistent and varying methods of rate control and ablation strategies used within studies

IMPLICATIONS FOR PRACTICE
- Aim to keep heart failure patients in sinus rhythm.
- Need more high level high quality research comparing ablation and rate control therapy in patients with Afib and HF.

QUESTIONS LEFT UNANSWERED
- Which HF patients are candidates for ablation?
- Does ablation reduce the risk of morbidity and mortality?
- Are results consistent for new onset Afib vs. long standing Afib?
- Is a specific ablation procedural strategy better than another?