



Arrhythmias

DIGOXIN AND RISK OF DEATH IN ADULTS WITH ATRIAL FIBRILLATION: THE ATRIA-CVRN STUDY

Moderated Poster Contributions

Poster Sessions, Expo North

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Authors: *James V. Freeman, Kristi Reynolds, Margaret Fang, Natalia Udaltsova, Anthony Steimle, Daniel Singer, Alan Go, Stanford University School of Medicine, Stanford, CA, USA, Division of Research, Kaiser Permanente Northern California, Oakland, CA, USA*

Background: Clinical guidelines endorse digoxin use for heart rate control in patients with atrial fibrillation, but this recommendation is based on limited, older clinical data. We sought to evaluate outcomes associated with digoxin in a contemporary cohort of incident atrial fibrillation patients.

Methods: We identified all adults diagnosed with incident atrial fibrillation between January 2006 and June 2009 within Kaiser Permanente Northern California and Southern California and without a history of heart failure or digoxin use. We used multivariable extended Cox regression to examine the association between newly initiated digoxin use and risk of death and hospitalization, after adjustment for demographic characteristics, comorbidity, selected laboratory results, medications, and the propensity to receive digoxin. We also conducted analyses stratified by age and gender.

Results: Among 23,272 newly diagnosed atrial fibrillation patients, 2997 (12.9%) received digoxin during follow-up. During a median 0.8 (interquartile range 0.38-1.47) years of follow-up, incident digoxin use was associated with a higher rate of death (9.49 vs. 4.27 per 100 person years) but no difference in the rate of hospitalization (3.18 vs. 3.25 per 100 person years). After adjustment for potential confounders, incident digoxin use was associated with more than twofold increased risk of death (adjusted hazard ratio [HR] 2.06, 95% CI: 1.73-2.45), and no significant difference in the risk of hospitalization (HR 1.05, 95% CI: 0.98-1.13). Results were consistent in analyses stratified by gender and age.

Conclusions: In patients with incident atrial fibrillation, digoxin use was independently associated with a higher risk of death but no significant difference in the risk of hospitalization. Given other available options for heart rate control, the role of digoxin in the management of atrial fibrillation should be reconsidered.