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Arrhythmias and Clinical EP

PROSPECTIVE EVALUATION OF GLYCEMIC CONTROL IN DIABETIC PATIENTS ON THE INCIDENCE OF ATRIAL FIBRILLATION AND ASSOCIATED CARDIOVASCULAR OUTCOMES: RESULTS OF THE ACCORD STUDY

Poster Contributions

Hall C

Saturday, March 29, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Arrhythmias and Clinical EP: Advances in Stroke Risk Stratification for Patients with Atrial Fibrillation

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

Presentation Number: 1143-118

Authors: *Omid Fatemi, Eugene Yuriditsky, Timothy Morgan, Vasilios Papademetriou, Washington Hospital Center, Washington, DC, USA, VA Medical Center, Washington, DC, USA***Background:** Atrial fibrillation (AF) is prevalent among diabetic patients, is associated with poor glycemic control, and increases risk for morbidity and mortality. The impact of glycemic control on incident AF and outcomes is unknown.**Methods:** 10,086 diabetic patients with cardiovascular disease or significant risk factors, without baseline AF, were randomized to an intensive therapeutic strategy targeting a glycated hemoglobin (HbA1c) level of <6.0%, or a standard strategy targeting an HbA1c of 7.0-7.9%. The rate of incident AF and cardiovascular outcomes between the two study arms were determined over a median follow-up period of 4.68 years.**Results:** Incident AF occurred in 159 patients (1.58%) over the follow-up period at a rate of 5.9/1,000 person-years in the intensive-therapy group, and at a rate of 6.37/1,000 person-years in the standard-therapy group (p=0.52). In a multivariate model, predictors of incident AF were age, weight, diastolic blood pressure, heart rate, congestive heart failure history. Diabetic patients with incident AF had a hazard ratio (HR) of 2.65 for all-cause mortality (95% CI 1.8-3.86, p<0.0001), HR of 2.1 for myocardial infarction (95% CI 1.33-3.31, p=0.0015), and HR of 3.80 for heart failure (95% CI 2.48-5.84, p<0.0001) Figure 1.**Conclusions:** Intensive glycemic control does not impact rate of incident AF; however, diabetic patients with incident AF had an increased risk for morbidity and mortality as compared to those without AF.

Figure: Relationship between new-onset atrial fibrillation and outcomes

