NONSTEROIDAL ANTIINFLAMMATORY DRUG TREATMENT IS ASSOCIATED WITH INCREASED RISK OF ATRIAL FIBRILLATION AND STROKE IN PATIENTS WITH PRIOR MYOCARDIAL INFARCTION - A NATIONWIDE STUDY

ACC Moderated Poster Contributions
McCormick Place South, Hall A
Sunday, March 25, 2012, 9:30 a.m.-10:30 a.m.

Session Title: Prevention: Clinical Current Topics in Anticoagulation/Antiplatelet Therapies
Abstract Category: 9. Prevention: Clinical
Presentation Number: 1192-598

Authors: Anne-Marie Schjerning Olsen, Emil Fosbol, Jesper Lindhardsen, Fredrik Folke, Jonas Olesen, Mette Charlot, Morten Lamberts, Martin Ruwald, Lars Kober, Peter R. Hansen, Christian Torp-Pedersen, Gunnar Gislason, Department of Cardiology, Copenhagen University Hospital, Gentofte, Hellerup, Denmark, The Heart Centre, Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark

Background: Nonsteroidal antiinflammatory drugs (NSAIDs) have been associated with increased risk of death and recurrent myocardial infarction (MI) in patients with prior MI, but little is known about cause-specific cardiovascular risk. We analyzed risk of atrial fibrillation (AF) and stroke associated with NSAID use after MI.

Methods: Using nationwide administrative registries in Denmark we studied patients aged ≥ 30 years admitted with first-time MI 1997-2009, without prior AF. Risk of AF or stroke associated with NSAID use was analyzed by multivariable time-dependent Cox proportional-hazard models adjusted for age, gender, calendar year, concomitant drug use, and comorbidity.

Results: Of 88,458 patients (mean age 68 [SD 13] years; 64% men) included, 46% filled at least one NSAID prescription after discharge. There were 9,578 AF and 7,687 strokes during the observation period. The Cox regression analysis (Figure) demonstrated significantly increased risk of AF (hazard ratio [HR] 1.31; 95% confidence interval [CI] 1.22-1.41) and stroke (HR 1.25; 1.15-1.35 95%) in patients using any NSAID. Rofecoxib was the NSAID associated with the highest risk of AF (HR 1.35; 95% CI 1.02-1.79) and stroke (HR 2.47; 95% CI 1.79-3.41).

Conclusions: NSAIDs are associated with increased risk of AF and stroke after MI. This study adds to evidence indicating that risk of AF and stroke must be considered when prescribing NSAIDs in patients with MI.