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 **CARDIAC ARRHYTHMIAS**

PREVENTION OF RECURRENT ATRIAL FIBRILLATION WITH ANGIOTENSIN-CONVERTING ENZYME INHIBITORS OR ANGIOTENSIN RECEPTOR BLOCKERS: A META-ANALYSIS OF RANDOMIZED TRIALS

ACC Poster Contributions

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Background: Controversy persists regarding the efficacy of angiotensin converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) in the prevention of recurrent atrial fibrillation. We performed a meta-analysis of randomized controlled trials (RCTs) to evaluate the efficacy of ACEIs and ARBs in the prevention of recurrent atrial fibrillation.

Methods: A systematic literature search for RCTs, using ACEIs or ARBs and providing data on the outcome of recurrent atrial fibrillation, revealed 8 studies including 2,323 patients. The Mantel-Haenszel random-effect model was used to calculate relative risk (RR) for studies using ACEIs or ARBs and, also for studies using ARBs. The Fixed-effect model was used to calculate RR for studies using ACEIs. A two-sided alpha error of less than 0.05 was considered to be statistically significant ($p < 0.05$).

Results: Meta-analysis of the studies (figure below) revealed that ACEIs or ARBs significantly reduced the incidence of recurrent atrial fibrillation (RR, 0.611; 95% CI, 0.441 to 0.847; $p = 0.003$). The RR for recurrent atrial fibrillation was 0.643 (95% CI, 0.439 to 0.941; $p = 0.023$) for studies using ARBs and 0.54 (95% CI, 0.377 to 0.80; $p = 0.002$) for studies using ACEIs.

Conclusions: Angiotensin blockade, with either angiotensin converting enzyme inhibitors or angiotensin receptor blockers, was associated with a significant reduction in the incidence of recurrent atrial fibrillation.

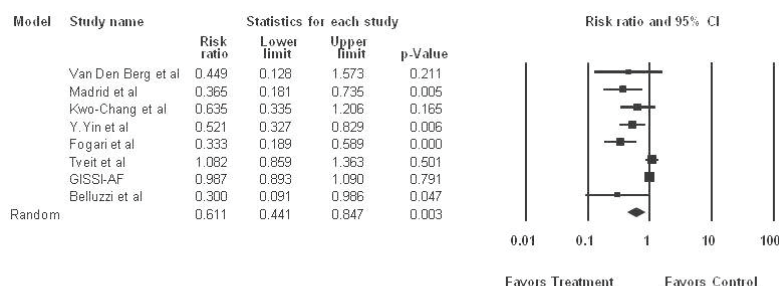


Figure 1. Prevention of recurrent atrial fibrillation with angiotensin blockade