

**INFLUENCE OF BETA-BLOCKERS ON MORTALITY IN CHRONIC HEART FAILURE PATIENTS WITH ATRIAL FIBRILLATION: FINDINGS FROM THE GULF-SAFE**

Poster Contributions

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Background: Beta-blockers are known to decrease long-term mortality in patients with heart failure (HF). However, their role in atrial fibrillation (AF) patients with HF is controversial. We hypothesized that beta-blockade therapy in patients presenting to the emergency room (ER) due to AF, and have history of HF, improves cardiovascular mortality and morbidity.

Methods: The Gulf Survey of Atrial Fibrillation Events (Gulf-SAFE) is a prospective, observational registry of patients presenting to the ER with AF. We studied the incidence of 12-month mortality, hospitalization for HF or AF in the subset of patients with history of HF.

Results: Among the 2043 patients who presented to ER with AF, 962 (47%) had history of HF. Among those, 144 (15%) received beta-blockers on discharge while 818 (85%) did not. Participants in both groups had similar age and prevalence of ischemic heart disease (IHD) (57 ± 16 vs 57 ± 15.8 years; 29.4 vs 29.3%, respectively). However, there were more males (55.9 vs 47.3%, $p=0.001$) and higher left ventricular ejection fraction (LVEF) (52 ± 13 vs $50\pm 13\%$, $p=0.02$) in patients on beta-blockers compared to no beta-blockers on discharge group. At one year, all-cause mortality and hospitalizations for HF were lower in patients receiving beta-blockers on discharge compared to the non-beta blockers group ($p=0.006$, OR 0.51, 95% CI [0.31 - 0.82]; $p=0.04$, OR 0.68, 95% CI [0.47 - 0.99]; respectively). Hospitalizations for AF were not affected ($p=0.41$, OR 1.18, 95% CI [0.8 - 1.75]). After adjustment for several risk variables, including age, gender, hypertension, smoking, dyslipidemia, LVEF, past medical history of IHD and stroke/transient ischemic attack, heart rate, left atrial size and medications at discharge, beta-blockers were independently associated with lower mortality risk ($p=0.007$, OR 0.45, 95% CI [0.25 - 0.81]).

Conclusions: In this cohort of patients presenting to ER in AF and a history of HF, use of beta-blockers at discharge was independently associated with better one-year survival.