Aldosterone is the major mineralocorticoid in the human body and is produced in the zona glomerulosa of the cortex in the adrenal glands, and its secretion is stimulated by angiotensin II, adrenocorticotropic hormone, catecholamines, and local potassium levels. Its levels in plasma are elevated 4-fold in heart failure (HF).

In a carefully performed statistical model, the use of MRAs had a relative risk of 1.97 for death, P<0.001, which appeared to be independent from the atrial fibrillation strategy used, renal function, and the propensity to use MRAs in subjects in the trial. How do these results compare with prior HF trials? The Randomized Aldactone Evaluation Study (RALES) trial and the Eplerenone Post-Acute Myocardial Infarction Heart Failure Efficacy and Survival Study (EPHESUS) trial did not report atrial fibrillation as a baseline characteristic; however, the Eplerenone in Mild Patients Hospitalization And Survival Study in Heart Failure (EMPHASIS-HF) trial reported in 30% with atrial fibrillation that there was no interaction with MRAs. Future studies should carefully evaluate the data that more ill patients with higher expected event rates received MRAs. Future studies should carefully evaluate the data that more ill patients with higher expected event rates received MRAs. Perhaps, a case-by-case review of particular the arrhythmic deaths would give clues on the events that occurred and whether any circumstances could be attributed to the use of MRAs.

In summary, we simply do not have enough information to implicate MRAs in the risks of adverse outcomes in patients with both atrial fibrillation and HF. It is clear from the baseline data that more ill patients with higher expected event rates received MRAs. Future studies should carefully evaluate the dynamic changes in potassium, renal function, and the use of both drugs and procedures to manage atrial fibrillation and HF to gain a better understanding of the risks and benefits of MRAs in this HF subset.

Disclosures

None.

References


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