

THE STUDIES OF ALDOSTERONE ANTAGONIST EFFECTIVITY IN THE TREATMENT OF CONGESTIVE HEART FAILURE

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Heart failure is a clinical syndrome characterized by the functional inability of the ventricle to meet the metabolic demands of the body.

Renal hypoperfusion occurs as a result of reduced cardiac output, resulting in the activation of the renin–angiotensin–aldosterone system which plays an important role in the pathophysiology in heart failure by way of its effects on sodium retention and potassium loss. Aldosterone is a major prognostic determinant in heart failure. As the rise of aldosterone in bloodstream causes increase in atrial and perivascular fibrosis of the pulmonary artery, as well as in the aorta.

In the Randomized Aldactone Evaluation Study (RALES) trial there is a proof of principle that aldosterone possesses pathophysiologic importance in patients with heart failure that is caused by systolic left ventricular dysfunction. This trial demonstrates the effect of spironolactone in doses of 12.5 and 25 mg and analysis suggested a uniform effect of spironolactone without regard to age, gender, cause of heart failure, use of concomitant potassium supplements, creatinine levels, and serum potassium level.

There was also a significant improvement in New York Heart Association Functional Classification (NYHA) as well as a 35% reduction in hospitalization for heart failure. But the only notable side effect in the RALES trial was an excess of gynecomastia and breast pain in males when increases the doses.

British National Formulary (BNF) presents the indication of spironolactone for oedema in congestive heart failure; moderate to severe heart failure as adjunct.

But in the most reliable electronic database like PubMed and different literatures recourses there have not been considered much of the existing evidence, and therefore the recommendations of these drugs are more restrictive in the type of heart failure patients. It is unclear how useful this class of drugs is in patients with mild and moderate heart failure. In 52 departments of internal medicine of the Spanish RICA there was performed an investigation of patients with heart failure and preserved ejection fraction (HFPEF). It has shown that the administration of spironolactone was associated with an increase in all-cause readmission, perhaps due to the higher rate of hyperpotassemia.

Therefore in Iraq hospital I am going to conduct an analysis of cardiologists' opinion for uses of aldosterone antagonists (spironolactone), their approach to the standard treatment of heart failure, as well as the way this class of drugs affects the CHF patients and the appearance of adverse events for standard dosage regimen.