THE STUDY OF ALDOSTERONE ANTAGONIST EFFECTIVITY IN THE TREATMENT OF CHRONIC HEART FAILURE

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Introduction. Heart failure (HF) is a clinical syndrome characterized by the functional inability of the ventricle to meet the hemo-dynamic demands of the body. Renal hypoperfusion occurs as a result of reduced cardiac output, resulting the activation of the renin–angiotensin–aldosterone system. Aldosterone is a major prognostic determinant in heart failure. As the rise of aldosterone in bloodstream causes increase in atrial and perivascular fibrosis. In this regard, angiotensin II reduction strategies, such as through the usage of ACE inhibitor as well as angiotensin receptor blocking (ARB) agents, or their combination are insufficient to block aldosterone production.

Aim. To investigate the epidemiology, pharmacoepidemiology and medical charts of heart failure treatment in Iraq hospital. To develop practical recommendations for healthcare professionals to increase the criteria of efficiency and safety of spironolactone use in case of Chronic Heart Failure (CHF) treatment in Iraq patients.

Materials and methods. While conducting the above-mentioned analysis it was created a questionnaire based on Chronic Heart Failure Questionnaire (CHFQ) for patients and cardiologists that used to treat these patients in cardiology department of Sader teaching hospital (Iraq, Basra city). The questionnaire contained the main information on patient state with moderate and severe heart failure, treatment with specification of spironolactone administration, and its side effects

Results and discussion. During the conducted analysis of data for 50 patients with chronic heart failure we observed the successful use for spironolactone in different dosages (25-100 mg) which were chosen on the severity of diagnosis (n=44). However, 4 patients discontinued because they experienced gynecomastia and hyperkalemia related to spironolactone use in the dosage range from 50 mg or 100 mg and 6 patients withdrew due to high levels of serum urea and creatinine. While 6 patients with moderate heart failure weren't administered the aldosterone antagonist due to the left ventricle ejection fraction more than 40% (LVEF>40).

Conclusions. The conducted analysis for medical charts of CHF treatment in Iraq hospital observed that the spironolactone should be administered in patients with III-IV NYHA classes and for patients with LVEF<40, in dosage 25 mg with gradual increasing to 100 mg if required. At the same time, it was proved that Iraq approaches of CHF treatment corresponds to the European and US requirements. According to the study results the drug improves patients' state as well as diuretics effect in combination with loop diuretics and ACE inhibitors with favourable effects to decrease morbidity and mortality.