



## THE EFFECT OF THE COMBINATION OF HEART FAILURE DRUGS ON BLOOD POTASSIUM, SODIUM AND MAGNESIUM LEVELS IN MALE WHITE RATS

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### Abstract

*Furosemide, captopril, bisoprolol, digoxin and spironolactone, including heart failure drugs. Heart failure drugs have side effects including hypokalemia, hyponatremia and hypomagnesemia. This study aims to look at the effect of the combination of heart failure drugs on blood electrolyte levels in rats. Animals were divided into 5 groups namely group 1 as a negative control, group 2 a combination of drugs namely furosemide 40 mg, captopril 25 mg. Group 3 drug combinations are 40 mg furosemide, 25 mg captopril, 0.25 mg digoxin. Group 4 drug combinations are 40 mg furosemide, 25 mg captopril, 0.25 mg digoxin, 25 mg spironolactone. Group 5 drug combinations are 40 mg furosemide, 25 mg captopril, 5 mg bisoprolol, 0.25 mg digoxin, 25 mg spironolactone. Provision of test substances carried out for 28 days. Analysis of electrolyte levels using atomic absorption spectrophotometry. Data were processed using ANOVA test. The results showed the average levels of potassium on days 0, 14, 28 were 12.09; 13.41; 12, 11 mg/L, the average sodium level on days 0, 14, 28 is 80.62; 83.41; 70.21 mg/L, the average magnesium level for days 0, 14, 28 is 1.15; 1, 20; 1.07 mg/L. From the results of this study it can be concluded that all drug combinations do not significantly affect electrolyte levels but are significantly affected by the duration of administration of heart failure drug combinations.*

### Author Keywords

Furosemide, Captopril, Digoxin, Bisoprolol, Spironolactone

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### Reference