ABSTRACT

This study aims to determine the diuretic activity of the Clinacanthus nutans, to know the needs analysis, the development process and the feasibility of the module as teaching material for circulatory system disorders. The research method for testing diuretic activity was experimentation with 35 male white rats of the Sprague Dawley strain were divided into 7 groups. Data were analyzed statistically using ANOVA. The module developed using R&D modification of the Borg and Gall model. The results showed that urine volume, urine pH, sodium and potassium levels in the urine were 13.01 ml, 7.02, 1.06 mEq/ml, and 0.5 mEq/ml, respectively; distilled water treatment, namely 13.77 ml, 7.11, 1.14 mEq/ml, and 0.57 mEq/ml; furosemide treatment 0.72 mg/200gBW, namely 15.78 ml, 7.21, 2.17 mEq/ml, and 0.98 mEq/ml; furosemide treatment 1.44 mg/200gBW, namely 18.13 ml, 7.58, 4.01 mEq/ml, and 1.88 mEq/ml; Clinacanthus nutans extract treatment was 75 mg/kgBW, namely 14.05 ml, 7.15, 1.34 mEq/ml, and 0.6 mEq/ml; Clinacanthus nutans extract treatment of 150 mg/kgBW were 16.78 ml, 7.37, 1.49 mEq/ml, and 0.76 mEq/ml; and treatment with 300 mg/kgBW Clinacanthus nutans extract, namely 17.98 ml, 7.44, 1.77 mEq/ml, and 0.87 mEq/ml. The results of the research on module development as a whole, the average value of the module validation test results is 0.89 very valid categories in terms of content, language, presentation, and graphics. It can be concluded that the extract of Clinacanthus nutans at a dose of 300 mg/kgBW has the highest diuretic activity and the module that has been developed is suitable for use as teaching materials.

Keywords: Diuretics, Clinacanthus nutans, Development, Teaching Materials, Module