UJI AKTIVITAS EKSTRAK ETANOL KULIT BUAH DUKU (*Lansium domesticum* Corr.) TERHADAP PERUBAHAN KADAR KOLESTEROL TOTAL DAN TRIGLISERIDA PADA TIKUS PUTIH JANTAN HIPERKOLESTEROLEMIA

ABSTRAK

Infark miokard (serangan jantung), merupakan komplikasi penyakit paling umum yang sering terjadi pada penyakit jantung koroner, yang disebabkan oleh aterosklerosis, yang dipicu oleh tingginya kadar kolesterol di dalam pembuluh darah. Penelitian ini dilakukan untuk mengetahui aktivitas ekstrak etanol kulit buah duku (*Lansium domesticum* Corr.) dalam mempengaruhi nilai kadar kolesterol total dan trigliserida pada tikus putih jantan hiperkolesterolemia. Kulit buah duku mengandung senyawa metabolit sekunder seperti flavonoid, alkaloid, terpenoid, senyawa fenol dengan isolasi senyawa murni yaitu rutin, skopoletin, asam klorogenat, kuersetin, katekin. Penelitian ini menggunakan 30 ekor tikus putih jantan hiperkolesterolemia yang dibagi menjadi 6 kelompok yaitu kelompok kontrol negatif, kelompok kontrol positif, kelompok pembanding (Simvastatin® 10 mg) dan ekstrak kulit buah duku dosis 25 mg/kgBB, 50 mg/kgBB, dan 100 mg/ kgBB. Induksi MDLT terdiri dari lemak sapi 2 gr, Kolesterol murni 1,25 gr, kuning telur puyuh 5 gr dan PTU 0,2 gr, diberikan per oral selama 21 hari. Penelitian ini dilakukan selama 42 hari dan pengukuran kadar kolesterol total dan trigliserida pada hari ke 43. Pengukuran dilakukan menggunakan spektrofotometri dengan metode CHOD-PAP (Cholesterol Oxidase Methode) *Enzymatic Colorimetri Test* untuk pengukuran kadar kolesterol total dan metode GPO-PAP (Glyserol-3-Phosphat Oxydase) *Colorimetri Enzymatic Test* untuk pengukuran kadar trigliserida. Analisis data menggunakan uji ANOVA satu arah dan dilanjutkan dengan uji Post Hoc Duncan. Dapat disimpulkan bahwa terdapat pengaruh variasi dosis esktrak kulit buah duku (*Lansium domesticum* Corr.) terhadap kolesterol total tetapi tidak berpengaruh terhadap trigliserida.

Kata Kunci: Infark Miokard, Kolesterol Total, Trigliserida, Hiperkolesterolemia, MDLT, Kulit Buah Duku (*Lansium domesticum* Corr.)

ACTIVITY TEST OF ETHANOL EXTRACT OF DUKU FRUIT PEEL (*Lansium domesticum* Corr.) ON CHANGES IN TOTAL CHOLESTEROL AND TRIGLYCERIDE LEVELS IN MALE WHITE RATS WITH HYPERCHOLESTEROLEMIA

ABSTRACT

Myocardial infarction (heart attack), is the most common complication of coronary heart disease, caused by atherosclerosis, which is triggered by high cholesterol levels in the blood vessels. This study was conducted to determine the activity of ethanol extract of duku fruit peel (*Lansium domesticum* Corr.) in influencing the value of total cholesterol and triglyceride levels in male white rats with hypercholesterolemia. Duku fruit peel contains secondary metabolite compounds such as flavonoids, alkaloids, terpenoids, phenolic compounds with the isolation of pure compounds, namely rutin, skopoletin, chlorogenic acid, quercetin, catechins. This study used 30 male white rats with hypercholesterolemia which were divided into 6 groups, namely the negative control group, the positive control group, the comparison group (Simvastatin® 10 mg) and duku fruit peel extract at doses of 25 mg/kgBB, 50 mg/kgBB, and 100 mg/kgBB. MDLT induction consists of beef fat 2 gram, pure cholesterol 1.25 gram, quail egg yolk 5 gram and PTU 0,2 gram, given orally for 21 days. This study was conducted for 42 days and the measurement of total cholesterol and triglyceride levels on the 43rd day. Measurements were carried out using spectrophotometry with the CHOD-PAP (Cholesterol Oxidase Methode) Enzymatic Colorimetry Test method for measuring total cholesterol levels and the GPO-PAP (Glyserol-3-Phosphate Oxydase) Enzymatic Test Colorimetry method for measuring triglyceride levels. Data analysis uses a one-way ANOVA test and continues with the Post Hoc Duncan test. It can be concluded that there is an effect of variation in the dose of duku fruit peel extract (*Lansium domesticum* Corr.) on total cholesterol but has no effect on triglycerides.

Keywords: Myocardial infarction, Total Cholesterol, Triglycerides, Hypercholesterolemia, MDLT, Duku Fruit Peel (*Lansium domesticum* Corr.)