

Universitas Ngudi Waluyo  
Program Studi S1 Farmasi, Fakultas Ilmu Kesehatan  
Skripsi, Februari 2020  
Ekky Kusumawardhani  
050116A019

**PENGARUH EKSTRAK ETANOL 96% DAUN KITOLOD (*Isotoma longiflora L.*) TERHADAP KADAR KOLESTEROL TOTAL DAN TRIGLISERIDA PADA TIKUS PUTIH JANTAN (*Rattus norvegicus strain wistar*)**

**ABSTRAK**

**Latar Belakang:** Hiperlipidemia adalah suatu kondisi kelebihan lemak dalam sirkulasi darah. Daun kitolod (*Isotoma longiflora L.*) mengandung senyawa kimia flavonoid yang memiliki aktivitas terhadap penurunan kadar kolesterol total dan trigliserida. Penelitian ini bertujuan untuk mengetahui aktivitas daun kitolod yang dapat menurunkan kadar kolesterol total dan trigliserida pada tikus putih jantan (*Rattus norvegicus strain wistar*).

**Metode:** Jenis penelitian ini merupakan penelitian eksperimental dengan rancangan *pre and post test group design* menggunakan 5 kelompok perlakuan. Data yang digunakan adalah selisih data *pre test* yang diambil setelah tikus diinduksi pakan tinggi lemak (lemak sapi 10%, minyak jelantah 20%, kuning telur puyuh 20%) selama 3 minggu, dan data *post test* diambil setelah tikus diberi perlakuan kelompok negatif (induksi pakan tinggi lemak), kelompok negatif (simvastatin 20mg/200KgBB/hari), kelompok perlakuan ekstrak daun kitolod, yaitu P1 (200mg/KgBB), P2 (400mg/KgBB), P3 (800mg/KgBB) selama 2 minggu. Data diuji menggunakan One Way Anova dengan taraf kepercayaan 95%.

**Hasil:** Ekstrak daun kitolod (*Isotoma longiflora L.*) mengandung flavonoid total sebesar 59,97mgQE/g, dengan P1 (Kolesterol total -44,92% : Trigliserida -21,73% ), P2 (Kolesterol total -41,65% : Trigliserida -31,32%), P3 (Kolesterol total -47,45% : Trigliserida -39,88% ). Sedangkan kelompok positif (Kolesterol -47,21% : Trigliserida -30,94%), Kelompok Negatif (Kolesterol Total 15,52% : Trigliserida 12,03%)

**Simpulan:** Ekstrak daun kitolod (*Isotoma longiflora L.*) dapat menurunkan kadar kolesterol total dan trigliserida. Dosis 800mg/KgBB sebanding dengan kelompok positif (P-value 0,237) menurunkan kolesterol total.

**Kata Kunci:** Daun kitolod (*Isotoma longiflora L.*), Kolesterol total, Trigliserida.

**Ngudi Waluyo University**  
**S1 Pharmacy Study Program, Faculty of Health Sciences**  
**Final Project, February 2020**  
**Ekky Kusumawardhani**  
**050116A019**

**THE EFFECTIVENESS OF 96% ETHANOL EXTRACT OF KITOLOD LEAF (*Isotoma longiflora L.*) ON TOTAL CHOLESTEROL AND TRIGLICERIDE LEVELS IN *Rattus norvegicus strain wistar***

**ABSTRACT**

**Background:** Hyperlipidemia is a condition of excessive fat in the blood circulation. Kitolod leaves (*Isotoma longiflora L.*) contain flavonoid chemical compounds which have activity towards decreasing total cholesterol and triglyceride levels. This study aims to determine the activity of kitolod leaves which can reduce total cholesterol and triglyceride levels in male white rats (*Rattus norvegicus strain wistar*).

**Method:** This type of research is an experimental study with pre and post test group design using five treatment groups. The data used were the difference in pre-test data taken after rats were induced by high-fat feed (10% beef fat, 20% used cooking oil, 20% quail egg yolk) for three weeks, and post-test data were taken after the rats were treated with negative groups (induction high fat feed), negative group (simvastatin 20mg/200gBB/day), kitolod leaf extract treatment group, namely P1 (200mg/KgBB), P2 (400mg/KgBB), P3 (800mg/KgBB). Data were tested using One Way Anova with a confidence level of 95%.

**Results:** Kitolod (*Isotoma longiflora L.*) leaf extract contained total flavonoids of 59.97mgQE/g, with P1 (total cholesterol -44.92%: Triglyceride -21.73%), P2 (total cholesterol -41.65%: Triglycerides -31.32%), P3 (Total cholesterol -47.45%: Triglycerides -39.88%). While the positive group (Cholesterol -47.21%: Triglyceride -30.94%), Negative Group (Total Cholesterol 15.52%: Triglyceride 12.03%)

**Conclusion:** Kitolod leaf extract (*Isotoma longiflora L.*) can reduce total cholesterol and trygliceride levels. 800mg/KgBB is proportional to the positive group reducing total cholesterol levels. 400mg/KgBB is proportional to the positive control of decreased triglycerides.

**Keywords:** Chitolod leaf (*Isotoma longiflora L.*), total cholesterol, triglycerides.