

## INTISARI

**LUTHFIYANTI, N., 2016, PENGARUH PEMBERIAN KOMBINASI EKSTRAK ETANOL 70% DAUN BAWANG KUCAI (*Allium tuberosum* Rottl ex. Spreng) DAN KULIT JERUK MANIS (*Citrus sinensis* L.) TERHADAP KADAR KOLESTEROL LDL DAN SEL BUSA PADA TIKUS PUTIH (*Rattus norvegicus*) HIPERKOLESTEROLEMIA, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.**

Daun bawang kucai dan kulit jeruk manis merupakan bagian tanaman yang memiliki efek antihiperkolesterolemia. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian kombinasi ekstrak daun bawang kucai dan kulit jeruk manis terhadap kadar kolesterol LDL, efek anti-aterosklerosis dibandingkan dengan dosis masing-masing tanaman dan dosis kombinasi ekstrak yang paling efektif.

Sebanyak 35 ekor tikus putih jantan galur wistar dibagi ke dalam tujuh kelompok. Kelompok kontrol normal hanya diberikan Confeed PAR-S dan air suling. Selama 42 hari, kelompok kontrol hiperkolesterol, dosis I (ekstrak daun bawang kucai 110mg/Kg BB), dosis II (ekstrak kulit jeruk manis 50mg/Kg BB), dosis III-V kombinasi ekstrak daun bawang kucai : kulit jeruk manis, dosis III (55mg/Kg BB : 25mg/Kg BB), dosis IV (82,5mg/Kg BB : 12,5mg/Kg BB), dan dosis V (27,5mg/Kg BB : 37,5mg/Kg BB) diberikan makanan tinggi kolesterol dan propiltiourasil 0,1%. Pemberian ekstrak dilakukan selama 14 hari. Pengukuran kadar kolesterol LDL dilakukan pada hari ke-0, 42, dan 56. Pada hari ke-56 diamati histopatologi aorta untuk melihat efek anti-aterosklerosis.

Hasil penelitian ini menunjukkan bahwa ekstrak daun bawang kucai dosis 110 mg/kgbb paling efektif untuk menurunkan kadar kolesterol LDL serta ditunjukkan adanya penurunan sel busa dan ketebalan dinding aorta pada tunika intima sampai tunika media. Sedangkan dosis kombinasi yang lebih efektif dalam menurunkan kadar kolesterol LDL dan menghambat sel busa yaitu dosis kombinasi ekstrak daun bawang kucai : kulit jeruk manis 82,5 mg/Kg BB : 12,5 mg/Kg BB.

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Kata kunci : ekstrak daun bawang kucai, ekstrak kulit jeruk manis, kolesterol LDL, sel busa.

## ABSTRACT

**LUTHFIYANTI, N., 2016, THE EFFECT OF ADMINISTERING A COMBINATION OF ALLIUM TUBEROSUM LEAVES EXTRACT (*Allium tuberosum* Rottl ex. Spreng) AND SWEET ORANGE PEEL EXTRACT (*Citrus sinensis* L.) AGAINST LDL CHOLESTEROL AND FOAM CELL ON HYPERCHOLESTEROLEMIA WHITE RATS, THESIS, PHARMACY FACULTY, SETIA BUDI UNIVERSITY, SURAKARTA.**

Allium tuberosum leaves and sweet orange peel is a part of the plant which have anti-hypercholesterolemia effect. This research aims to know the effectiveness of the combination of Allium tuberosum leaves extract and sweet orange peel extract against LDL cholesterol levels, anti-atherosclerosis effect compared to the doses of each plant and the dose is the most effective combination of extracts.

As many as 35 white male rats wistar strain divided into seven groups. Normal control group was given only PAR-S Confeed and aquadestillata. During the 42 days, the control group of hypercholesterol, dose I (Allium tuberosum leaves extract 110 mg/Kg BW), dose II (sweet orange peel extract 50 mg/Kg BW), dose III-V the combination of Allium tuberosum leaves : orange sweet peel, dose III (55mg/Kg BW : 25mg/Kg BW), dose IV (82,5mg/Kg BW : 12,5mg/Kg BW), and dose V (27,5mg/Kg BW : 37,5mg/Kg BW) given the high cholesterol food and propiltiouracil 0.1%. Administering of extracts made during 14 days. Measurement of LDL cholesterol levels done on day 0<sup>th</sup>, 42<sup>nd</sup>, and 56<sup>th</sup>. On day 56<sup>th</sup> observed histopathology aorta to see the effect of anti-atherosclerosis.

The results of this study showed that extract of Allium tuberosum leaves dose of 110 mg/KgBW is most effective for lowering LDL cholesterol levels as well as indicated the existence of a decrease in foam cell and a wall thickness of the aorta in intima tunika to media tunika. While the combination of doses is more effective in lowering LDL cholesterol levels and inhibit foam cell that is a combination dose of Allium tuberosum leaves extract : sweet orange peel extract 82,5mg/Kg BW : 12,5mg/Kg BW.

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Keyword : Allium tuberosum leaves extract, sweet orange peel extract, LDL cholesterol, foam cell.