

ABSTRAK

Penelitian ini bertujuan untuk mengetahui peranan ekstrak etanol bunga gemitir terhadap kadar kolesterol total, *Low Density Lipoprotein* (LDL-C), *High Density Lipoprotein* (HDL-C), *Malondialdehyde* (MDA) serta aktivitas *Superoxide Dismutase* (SOD) pada hewan coba *Rattus norvegicus* hiperkolesterolemia. Empat puluh delapan ekor *Rattus norvegicus* dibagi menjadi 6 kelompok. Penelitian ini diawali kelompok K+, P1, P2, P3, P4 diberikan *High Fat Diet* (HFD) selama 35 hari dan pada hari ke- 36 diperiksa kadar kolesterol darah yang diambil melalui ekor *Rattus norvegicus*. Hari ke-37 hingga hari ke-50 diberikan *simvastatin* 10 mg/kgBB pada P1, ekstrak etanol bunga gemitir (*Tagetes erecta* L.) dengan dosis 200; 400; 800 mg/kgBB berturut-turut pada P2, P3 dan P4. Hari ke 51 *Rattus norvegicus* di korbakan untuk diperiksa kadar kolesterol total, LDL-C, HDL-C, SOD dan MDA. Hasil kemudian dianalisis menggunakan uji *One Way ANOVA* versi 25 dengan signifikansi $p < 0,05$. Pemberian ekstrak bunga gemitir 200 dan 400 mg/kgBB (*Tagetes erecta* L.) selama 14 hari pada *Rattus norvegicus* hiperkolesterolemia dapat menurunkan kadar kolesterol total, LDL-C, MDA dan SOD secara bermakna ($p < 0,05$) serta meningkatkan kadar HDL-C namun tidak secara bermakna. Ekstrak bunga gemitir (*Tagetes erecta* L.) dapat menurunkan kadar kolesterol total, LDL-C, MDA, dan aktivitas SOD, sehingga dapat disarankan sebagai alternatif terapi penurun hiperkolesterolemia.

Kata Kunci: Bunga gemitir, Hiperkolesterolemia, Profil Lipid, *Malondialdehyde*, *Superoxide Dismutase*

ABSTRACT

This study aims to determine the role of marigold flower (*Tagetes erecta* L) ethanol extract in total cholesterol levels, *Low Density Lipoprotein* (LDL-C), *High Density Lipoprotein* (HDL-C), *Malondialdehyde* (MDA) and *Superoxide Dismutase* (SOD) activity in hypercholesterolemic *Rattus norvegicus*. Forty-eight *Rattus norvegicus* were divided into 6 groups. Groups K +, P1, P2, P3, P4 were given *High Fat Diet* (HFD) for 35 days while K- was given standard feed and on day 36 were checked for total cholesterol levels in the tail of *Rattus norvegicus*. Day 37 to day 50, *simvastatin* 10 mg/kgBW was given to P1, ethanol extract of marigold flower (*Tagetes erecta* L) at a dose of 200 (P2); 400 (P3); 800 mg/kgBW at P3. Day 51, *Rattus norvegicus* was sacrificed to check levels of total cholesterol, LDL-C, HDL-C, SOD and MDA. The results were analyzed by *One Way ANOVA* test version 25 with a significance of $p < 0.05$. Giving gemitir flower extract 400 mg/kgBW (*Tagetes erecta* L.) for 14 days to hypercholesterolemic *Rattus norvegicus* can significantly reduce total cholesterol, LDL-C, MDA and SOD levels ($p < 0.05$) and increase HDL-C levels but not significantly. Marigold flower extract (*Tagetes erecta* L.) can reduce levels of total cholesterol, LDL-C, MDA, and SOD activity, so it can be suggested as an alternative therapy for reducing hypercholesterolemia.

Keywords: Marigold flower, Hypercholesterolemia, Lipid Profile, *Malondialdehyde*, *Superoxide Dismutase*