INTISARI

Inflamasi merupakan respon normal pertahanan tubuh terhadap trauma fisik, zat kimia berbahaya atau agen mikrobiologi dengan respon berupa rubor, calor, dolor, dan tumor. *Milk Thistle* diketahui memiliki banyak efek farmakologis, salah satunya adalah sebagai antiinflamasi baik pada inflamasi akut maupun inflamasi kronis. Tujuan penelitian ini yaitu untuk menguji efek antiinflamasi sediaan topikal, mengukur persen penghambatan inflamasi ekstrak *Milk Thistle*® sebagai agen antiinflamasi pada kulit punggung mencit betina galur Swiss yang terinduksi karagenin.

Penelitian ini termasuk dalam ekperimental murni rancangan acak lengkap pola searah yang dilakukan pada mencit berumur 6-8 minggu dengan berat badan 20-25 gram. Hewan uji dibagi menjadi 6 kelompok, yaitu kelompok kontrol negatif karagenin 3%, kelompok kontrol positif Hydrocortisone® 2,5%, kontrol basis Biocream®, dan kelompok perlakuan krim ekstrak *Milk Thistle*® 1,67; 2,5; 3,75% B/B. Krim dioleskan setelah punggung hewan uji diinduksi karagenin, kemudian tiap jam dilakukan pengukuran tebal lipatan kulit punggung hewan uji selama 6 jam pengamatan. Data tebal lipatan kulit dianalisis menggunakan uji *Shapiro-Wilk* dilanjutkan dengan analisis *Kruskall-Wallis* dan *Post hoc Mann-Whitney*.

Persen penghambatan inflamasi (%PI) ekstrak *Milk Thistle*® dengan konsentrasi 1,67; 2,5; dan 3,75% secara berurutan adalah 74,70; 80,31; dan 81,98%. Konsentrasi 3,75% menunjukkan efek antiinflamasi topikal terbesar. Dengan demikian hasil penelitian menunjukkan bahwa ektrak Milk Thistle® memiliki efek antiinflamasi topikal terhadap edema kulit punggung mencit terinduksi karagenin.

Kata kunci : inflamasi, ekstrak *milk thistle*®, karagenin

ABSTRACT

Inflammation was a normal response of the body's defense system against physical trauma, hazardous chemicals or microbiological agent, with a response in the form of rubor, calor, dolor and tumor. *Milk thistle* was known to have many pharmacological effects, one of which is as anti-inflammatory in both acute and chronic inflammation. The aim of this study is to examine the anti-inflammatory effects topical preparations, measuring the percent inhibition of inflammation (% PI) *Milk thistle*® extract as an anti-inflammatory agent in the back skin of female *Swiss* strain mice induced by carageenan. The method used is inflammation-associated oedema by measuring back skin fold thickness of mice.

This study is included in a purely experimental study one way randomized design that is performed on 6-8 weeks, 20-25 grams mice. Test animals were divided into 6 groups, the negative control group carageenan 3%, the positive control group Hydrocortisone®, the base control group Biocream® and treatment group the extract of *Milk Thistle*® cream 1.67; 2.5%; 3.75% b/b. Ethanol extract of *Milk Thistle*® applied after back of test animals was induced by 0,2 ml of 3% carageenan, then every hour middorsal skin folds thickness was measured over 6 hour observation. Skin folds thickness data were analyzed using the Shapiro-Wilk test continued with Kruskal-Wallis analysis and Post hoc Mann-Whitney.

Percent inhibition of inflammation (%PI) extract of *Milk Thistle*® from the concentration 1.67; 2.5; and 3.75% w/w respectively was 74.70; 80.31; dan 81.98%. The 3.75% concentration showed the greatest topical anti-inflammatory effect. Based on linear regression between log concentration of *Milk Thistle*® extract. The results above showed that extract of *Milk Thistle*® has topical anti-inflammatory effect of mice back skin oedema induced by carrageenan.

Keyword: inflammation, *Milk Thistle*® extract, carrageenan