PENGARUH PEMBERIAN VCO (*Virgin Coconut Oil*) TERHADAP KEDALAMAN LESI MUKOSA LAMBUNG YANG DIAMATI SECARA MIKROSKOPIS PADA TIKUS (*Rattus novergicus)* STRAIN WISTAR YANG DIINDUKSI INDOMETASIN

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ABSTRAK

Ulkus Peptikum adalah kerusakan lapisan mukosa lambung yang disebabkan oleh asam lambung berlebih. VCO (Virgin Coconut Oil) memiliki kandungan asam laurat yang berfungsi sebagai anti-bakteri dan juga flavonoid yang berfungsi sebagai anti-inflamasi. Penelitian ini dilakukan untuk mengetahui efek dari VCO terhadap kedalaman lesi mukosa lambung tikus Wistar yang diinduksi indometasin. Penelitian ini menggunakan desain eksperimental *post-test only control group.* Sampel penelitian terbagi menjadi 5 kelompok yaitu kontrol negatif, kontrol positif (ulkus diinduksi indometasin), perlakuan 1,2, dan 3 (ulkus diinduksi indometasin + VCO dosis 1,25 ml/kgBB, dosis 2,5 ml/kgBB, dan dosis 5 ml/kgBB, masing-masing. Jaringan lambung dipersiapkan untuk pengecatan Hematoxylin-Eosin. Perhitungan kedalaman lesi ulkus dihitung secara mikrokopis menggunakan scoring integritas epithel *Barthel Manja*. Analisa statistik menunjukkan bahwa lesi ulkus tiap tikus berbeda secara bermakna pada kelompok kontrol negatif (ANOVA, $p<0.05$). Pemberian VCO dosis 1,25 ml/kgBB memberikan penurunan skor lesi ulkus yang tidak terlalu bermakna dibandingkan kontrol positif, sedangkan dosis 2,5 ml/kgBB dan 5 ml/kgBB dapat memberikan penurunan skor lesi ulkus secara bermakna. Menariknya, pemberian VCO dosis optimal, tidak terdapat perbedaan signifikan dibandingkan dengan tikus tanpa induksi indometasin. Dapat disimpulkan bahwa pemberian VCO dosis 1,25 ml/kgBB, 2,5 ml/kgBB dan 5 ml/kgBB dapat menurunkan kedalaman lesi ulkus lambung pada tikus Wistar yang diinduksi indometasin.
Kata kunci : VCO, ulkus, lesi, lambung

THE EFFECT OF VCO (*Virgin Coconut Oil*) ON THE DEPTH OF GASTRIC MUCOSAL LESION OF WISTAR (*Rattus novergicus)* RAT THAT IS INDUCED BY INDOMETACIN

ABSTRACT

Peptic ulcer is damage of the mucosal layer of gastric caused by the activity of excess stomach acid. VCO (*Virgin Coconut Oil*) contains lauric acid which functions as anti-bacterial and also flavonoids that function as anti-inflammatory. This study was conducted to determine the effect of VCO on the depth of gastric mucosal lesion of Wistar rat that is induced by indomethacin. This study was designed as experimental post test only controlled group. The sample was divided into 5 groups: negative control, positive control (indomethacin-induced ulver), treatment 1, 2, and 3 (indomethacin-induced ulcer + VCO dose 1.25 ml/kgBB, dose 2.5 ml/kgBB, and dose 5 ml/kgBB respectively). Gastric tissue was prepared for histopathological specimen then stained with Hematoxylin-Eosin. Score of the ulcer each specimen was analyzed microscopically using *Barthel Manja* method. Statistical analysis showed that the ulcer lesion per rat differed significantly in negative control groups (ANOVA, $p <0.05$). VCO doses of 1.25 ml/kgBB resulted in a significantly lower reduction in ulcers lesion score compared with positive controls, while doses of 2.5 ml/kgBB and 5 ml/kgBB could significantly decrease the ulcers lesion score. Interestingly, in the optimal dose of VCO, there was no significant differences compared with non- indomethacin-induced rats. It can be concluded that the administration of VCO dose 1.25 ml/kgBB, 2.5 ml/kgBB and 5 ml/kgBB can decrease the depth of gastric ulcer score in indomethacin-induced Wistar rats.
Keywords : VCO, ulcer, lesion, gastr