PENGARUH PEMBERIAN KAWA DAUN GAMBIR (*Uncaria gambir Roxb.)* TERHADAP KADAR MALONDIALDEHID (MDA) JARINGAN HATI MENCIT (*Mus musculus*) DIABETES YANG DIINDUKSI ALOKSAN

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ABSTRAK

Kawa daun gambir (*Uncaria gambir Roxb*) merupakan minuman yang terbuat dari daun gambir yang dikeringkan dan diseduh seperti membuat teh yang mengandung senyawa *epicathecin, epicathecin-3-gallate, epigalloctahechin-3-gallate,* dan *epigallocathechin* yang berpotensi menurukan kadar MDA jaringan hati. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian kawa daun gambir (*Uncaria gambir Roxb*) terhadap kadar MDA jaringan hati mencit (*Mus musculus*) diabetes yang diinduksi aloksan.

Penelitian ini merupakan *true experimental* dengan *post-test only control group design*. Sebanyak 30 ekor mencit dibagi menjadi lima kelompok yaitu K-, K+, P1, P2, P3. Kelompok K+, P1, P2, dan P3 diinduksi aloksan. Kemudian dilanjutkan dengan pemberian kawa daun gambir dosis 1 gr/100 ml, 2 gr/100 ml, dan 4 gr/100 ml untuk P1, P2, dan P3 selama 14 hari. Rerata kadar MDA jaringan hati diperiksa dengan metode *thiobarbituric acid reactive substances* (TBARS). Analisis data menggunakan *One way ANOVA* dan *Post Hoc Least Significant Differences (LSD).*

Induksi aloksan dapat meningkatkan kadar MDA jaringan hati kelompok kontrol positif, dan kelompok perlakuan dibanding kontrol negatif. Rerata kadar MDA jaringan hati pada kontrol negatif adalah 8,34 nmol/ml, kontrol positif 12,71 nmol/ml, perlakuan satu 10,64 nmol/ml, perlakuan dua 8,35 nmol/ml, perlakuan tiga 8,46 nmol/ml. Terdapat perbedaan yang signifikan pengaruh pemberian kawa daun gambir pada perlakuan 1, perlakuan 2, dan perlakuan 3 terhadap kontrol positif, $p= 0,000$ ($p<0,05$). Tidak terdapat perbedaan perlakuan 2 dan perlakuan 3 terhadap kontrol negatif, $p= 0,986$.

Kesimpulan penelitian ini adalah kawa daun gambir dapat menurunkan kadar MDA jaringan hati.

Kata kunci : aloksan, gambir, kawa daun, malondialdehid jaringan hati.

THE EFFECT OF KAWA DAUN GAMBIR (*Uncaria gambir Roxb.*) ON MALONDIALDEHYDE (MDA) LIVER TISSUE LEVEL AT DIABETIC MICE (*Mus musculus*) INDUCED BY ALLOXAN

By
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ABSTRACT

Kawa daun gambir (*Uncaria gambir Roxb.)* is a drink brewed from dried gambir leaves that contains epicathecin, epicathecin-3-gallate, epigalloctahechin-3-gallate, and epigallocathechin which are useful in decreasing MDA liver tissue level. This study aimed to determine the effect of kawa daun gambir (*Uncaria gambir Roxb.*) on MDA liver tissue level of diabetic mice (*Mus musculus*) induced by alloxan.

This study was experimental study with post-test only control group design. The study was performed on 30 mice that were divided into 5 groups. The negative control group (K-), positive control group (K+), and 3 treatment groups (P1, P2, P3) were induced by alloxan. The treatment group received 1 gr/100 mL, 2 gr/100 mL, and 4 gr/100mL for 14 days of kawa daun gambir. The MDA liver tissue level were examined by thiobarbituric acid reactive substances (TBARS) method. One way ANOVA and Post Hoc Least Significant Differences (LSD) test were used to analyze the data.

Alloxan induction could increase MDA levels of liver tissue in the positive control group, and the treatment group compared to the negative control group. The average level of MDA liver tissue for negative control group (K-) was 8,34 nmol/mL, the positive control group was 12,71 nmol/mL, P1 was 10,64 nmol/mL, P2 was 8,35 nmol/mL, and P3 was 8,46 nmol/mL. There was a significant difference in MDA tissue level among the groups after receiving kawa daun gambir with p value=0,000 ($p<0,05$). There was no difference found in treatment 2 and treatment 3 to the negative control group, p= 0,986.

The conclusion is kawa daun gambir can decrease MDA liver tissue level.

Key words : alloxan, gambir, kawa daun, malondialdehyde liver tissue.