

**PENGARUH SARI MARKISA UNGU (*Passiflora edulis var edulis*)
TERHADAP KADAR SGOT-SGPT TIKUS (*Rattus norvegicus*) MODEL
DIABETES MELITUS**

ABSTRAK

Diabetes Melitus (DM) merupakan kelainan metabolik dengan karakteristik hiperglikemia yang menyebabkan berbagai komplikasi. Sari markisa ungu (*Passiflora edulis var edulis*) mengandung flavonoid, β -karoten, vitamin C dan alkaloid yang mempunyai potensi antihiperglikemia dan antioksidasi. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian sari markisa ungu (*Passiflora edulis var edulis*) terhadap kadar SGOT-SGPT tikus (*Rattus norvegicus*) model DM. Metode penelitian adalah eksperimental dengan *post test only with control group design*. Dua puluh lima ekor tikus putih jantan dibagi dalam lima kelompok. Kelompok A sebagai kontrol normal, kelompok B sebagai kontrol negatif, kelompok C dengan perlakuan 1,05 mL/200 gBB, kelompok D dengan perlakuan 2,1 mL/200gBB, dan kelompok E dengan perlakuan 4,2 mL/200gBB. Hari pertama hewan coba diinduksi aloksan dengan dosis tunggal 120 mg/kgBB. Pemberian sari buah dilakukan selama 21 hari setelah hewan coba dinyatakan DM. Rerata kadar SGOT pada kelompok A=157,67 \pm 74,05 U/L; B=109,85 \pm 53,29 U/L; C=140,64 \pm 36,00 U/L; D=111,97 \pm 47,16 U/L; E=156,27 \pm 42,68 U/L. Rerata kadar SGPT pada kelompok A=51,14 \pm 10,02 U/L; B=80,37 \pm 19,92 U/L; C=49,24 \pm 16,71 U/L; D=57,17 \pm 11,53 U/L; E=63,36 \pm 13,42 U/L. Uji *One Way ANOVA* menunjukkan hasil tidak terdapat perbedaan rerata signifikan pada minimal dua kelompok data SGOT dan terdapat perbedaan rerata yang signifikan pada SGPT. Hasil uji *post hoc LSD* terdapat perbedaan signifikan antara kelompok B dengan kelompok A, C dan D. Kesimpulan pada penelitian ini pemberian sari markisa ungu berpengaruh terhadap kadar SGPT tikus (*Rattus norvegicus*) model DM dengan dosis efektif 1,05 mL/200gBB dapat menghambat peningkatan kadar SGPT.

Kata kunci: Diabetes Melitus, SGOT, SGPT, markisa ungu, *Passiflora edulis var edulis*.

THE EFFECT OF PURPLE PASSION FRUIT JUICE (*Passiflora edulis* var *edulis*) ON SGOT-SGPT LEVELS IN DIABETES MELLITUS ALBINO RATS (*Rattus norvegicus*) MODELS

ABSTRACT

*Diabetes Mellitus (DM) is a metabolic disorder characterized by hyperglycemia which causes various complications. Purple passion fruit juice (*Passiflora edulis* var *edulis*) contains flavonoid, β -carotene, vitamin C and alkaloid which have anti-hyperglycemic and anti-oxidant potentials. This study aimed to determine the effect of purple passion fruit juice (*Passiflora edulis* var *edulis*) on SGOT-SGPT levels in DM albino rats (*Rattus norvegicus*) models. The research method was experimental study with post test only with control group design. Twenty-five males of albino rats were divided randomly into five groups. Group A as a normal control, group B as a negative control, group C with juice treatment 1.05 mL/200gBW, group D with juice treatment 2.1 mL/200gBW, and group E with juice treatment 4.2 mL/200 gBW. The first day, animals were induced by alloxan with a single dose of 120 mg/kgBW. Giving juice was carried out for 21 days after the DM albino rat was declared. The mean SGOT in group A=157.67 \pm 74.05 U/L; B=109.85 \pm 53.29 U/L; C=140.64 \pm 36.00 U/L;D=111.97 \pm 47.16 U/L;E=156.27 \pm 42.68 U/L. The mean SGPT in group A=51.14 \pm 10.02 U/L;B=80.37 \pm 19.92 U/L;C=49.24 \pm 16.71 U/L;D=57.17 \pm 11.53 U/L;E=63.36 \pm 13.42 U/L. The One Way ANOVA test showed that there is no significant mean differences in at least two groups of SGOT and there is significant mean differences results in SGPT. The results of post hoc LSD test there is significant differences between group B and groups A, C and D. The conclusion is purple passion fruit juice has an effect on SGPT of albino rats (*Rattus norvegicus*) DM models with an effective dose of 1.05 mL/200gBW can inhibit the increasing of SGPT levels.*

Keywords: *Diabetes Mellitus, Passiflora edulis* var *edulis*, *Purple Passion Fruit*, SGOT, SGPT.