

**PENGARUH SARI MARKISA UNGU (*Passiflora edulis var edulis*)
TERHADAP KADAR ALBUMIN SERUM TIKUS (*Rattus norvegicus*)
JANTAN MODEL DIABETES MELITUS**

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ABSTRAK

Hiperglikemia pada Diabetes Melitus (DM) dapat menstimulasi pengeluaran adipositokin dan meningkatkan *Free Fatty Acid* di sirkulasi, yang akan berlanjut pada stress oksidatif. Hal ini dapat memperburuk terjadinya gangguan pada hepatosit sehingga sintesis albumin serum dapat menurun. Markisa ungu (*Passiflora edulis var edulis*) memiliki kandungan antioksidan seperti vitamin C, β -karoten, flavonoid, dan serat. Efek antioksidan markisa ungu diketahui dapat menghambat peningkatan stres oksidatif dan berfungsi sebagai senyawa hepatoprotektor. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian sari markisa ungu (*Passiflora edulis var edulis*) terhadap kadar albumin serum tikus (*Rattus norvegicus*) jantan model DM. Metode penelitian adalah eksperimental dengan *post test only with control group design*. Dua puluh lima ekor tikus putih (*Rattus norvegicus*) dibagi dalam 5 kelompok. Kelompok I sebagai kontrol normal, kelompok II, III, IV dan V merupakan model DM melalui induksi aloksan 120 mg/kgBB dosis tunggal secara intraperitoneal. Kelompok III, IV, dan V mendapatkan sari buah markisa ungu (*Passiflora edulis var edulis*) selama 21 hari dengan dosis 1,05 mL/200 gBB, 2,1 mL/200 gBB, dan 4,2 mL/200 gBB. Kadar albumin serum diperiksa dengan metode *bromcresol green*. Rerata kadar albumin serum pada kelompok I $2,69 \pm 0,54$ g/dL, kelompok II $3,42 \pm 1,01$ g/dL, kelompok III $2,83 \pm 0,37$ g/dL, kelompok IV $3,32 \pm 0,79$ g/dL, dan kelompok V $2,34 \pm 0,35$ g/dL. Uji *One Way ANOVA* menunjukkan nilai $p=0,093$ ($p>0,05$), yaitu tidak terdapat perbedaan signifikan antar kelompok. Kesimpulan penelitian ini adalah pemberian sari markisa ungu (*Passiflora edulis var edulis*) tidak berpengaruh terhadap kadar albumin serum tikus (*Rattus norvegicus*) jantan model DM.

Kata kunci: Albumin serum, Diabetes Melitus, Markisa Ungu, *Passiflora edulis var edulis*

THE EFFECT OF PURPLE PASSION FRUIT JUICE (*Passiflora edulis var edulis*) ON SERUM ALBUMIN OF DIABETES MELLITUS MODELS RATS (*Rattus norvegicus*)

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ABSTRACT

*Hyperglycemia in Diabetes Mellitus (DM) can stimulate the release of adipocytokine and increase Free Fatty Acid in the circulation, which will continue to oxidative stress. This can worsen the occurrence of interference with hepatocytes so that serum albumin synthesis can decrease. Purple passion fruit (*Passiflora edulis var edulis*) has antioxidants such as vitamin C, β -carotene, flavonoids, and fiber. The antioxidant effect of purple passion fruit is known to inhibit increased oxidative stress and function as a hepatoprotector. The aim of this study was to determine the effect of purple passion fruit juice (*Passiflora edulis var edulis*) on serum albumin levels of male DM rats (*Rattus norvegicus*). The research method was experimental with post test only with control group design. Twenty-five white rats (*Rattus norvegicus*) were divided into 5 groups. Group I as a normal control, group II, III, IV and V is a DM model treated 120 mg/kg body weight of single dose alloxan intraperitoneally. Groups III, IV, and V obtained purple passion fruit juice (*Passiflora edulis var edulis*) for 21 days at a dose of 1.05 mL/200 g body weight, 2.1 mL/200 g body weight, and 4.2 mL/200 g body weight. Serum albumin levels were examined by the bromcresol green method. The mean serum albumin level in group I was 2.69 ± 0.54 g/dL, group II was 3.42 ± 1.01 g/dL, group III was 2.83 ± 0.37 g/dL, group IV was 3.32 ± 0.79 g/dL, and group V 2.34 ± 0.35 g/dL. The One Way ANOVA test showed a value of $p = 0.093$ ($p > 0.05$), so there were no significant differences between groups. The conclusion of this study is that the administration of purple passion fruit (*Passiflora edulis var edulis*) did not affect the serum albumin level of male DM rats (*Rattus norvegicus*).*

Keywords: Serum albumin, Diabetes Mellitus, Purple Passion Fruit, *Passiflora edulis var edulis*