

**PENGARUH PEMBERIAN EKSTRAK BUAH PIDADA MERAH
(*Sonneratia caseolaris* (L.) Engl.) TERHADAP KADAR GLUKOSA DARAH
TIKUS GALUR WISTAR DIABETIK**

Wendi Corlia Cahyaninglatri

ABSTRAK

Diabetes Melitus saat ini menjadi salah satu ancaman kesehatan global penyebab kematian tertinggi di Asia Tenggara, sehingga perlu dicari pengobatan alternatif yaitu menggunakan buah Pidada Merah yang mengandung bioaktif flavonoid, tanin, dan antosianin berguna sebagai antidiabetes dan antioksidan. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian ekstrak buah Pidada Merah dalam mengurangi kadar glukosa darah tikus galur wistar diabetik. Penelitian bersifat eksperimental menggunakan *randomized pre and post control group design*. Penelitian menggunakan tikus putih (*Rattus norvegicus*) galur Wistar, jenis kelamin jantan, usia 2-3 bulan, dan berat badan \pm 200 gram. Tikus dibagi menjadi 6 kelompok; kelompok 1 diberi pakan standar dan aquadest. kelompok 2, 3, 4, 5, 6 diberi pakan tinggi lemak 28 hari. Selanjutnya tikus dipuasakan selama 10 jam untuk diinduksi aloksan 125 mg/kgBB secara intraperitoneal. Setelah 48 jam glukosa darah diperiksa dengan glukometer. Kelompok 3 ditambahkan glibenklamid, kelompok 4,5,6 diberikan ekstrak buah Pidada Merah dengan dosis 200, 400, dan 800 mg/kgBB. Pemberian perlakuan dilakukan selama 14 hari. Uji One-Way Anova menunjukkan terdapat pengaruh ekstrak buah Pidada Merah dalam mengurangi kadar glukosa darah ($p = 0,000$). Uji Post-Hoc Bonferroni menunjukkan bahwa ekstrak buah Pidada Merah dengan dosis 800 mg/kg hampir sama dengan perlakuan glibenklamid ($p = 1,000$) dan yang paling baik dalam menurunkan glukosa darah mendekati nilai normal.

Kata Kunci : Buah Pidada Merah, Diabetes Melitus, Glukosa Darah

EFFECTS OF RED PIDADA FRUIT EXTRACT (*Sonneratia caseolaris* (L.) Engl.) ON BLOOD GLUCOSE LEVEL IN DIABETIC WISTAR RATS

Wendi Corlia Cahyaninglatri

ABSTRACT

Diabetes Mellitus is currently a global health threat, the highest cause of death in Southeast Asia, it is necessary to look for alternative treatments, namely Red Pidada fruit is known to contain bioactive flavonoids, tannins, and anthocyanins which can be used as anti-diabetics and antioxidants. This study aimed to determine the effect of giving Red Pidada fruit extract in reducing blood glucose levels in diabetic Wistar rats. This is an experimental study using a pre-post control group design, with a sample of male Wistar rats (*Rattus norvegicus*) taken from PT Biofarma Bandung, 2-3 months old, and \pm 200 gram body weight. In the study, the rats were divided into six groups; Group 1 was given standard feed and aquadest. Groups 2, 3, 4, 5, and 6 were given a high-fat diet for 28 days. Furthermore, the rats were fasted for 10 hours to be induced by alloxan 125 mg/kg BW intraperitoneally. After 48 hours, the blood glucose from the tails was measured using a glucometer. Group 3 was added with glibenclamide, groups 4, 5, and 6 were given Red Pidada fruit extract at doses 200, 400, and 800 mg/kg BW. Treatment was given for 14 days. One-Way Anova test showed the effectiveness of Red Pidada fruit extract in reducing blood glucose levels ($p = 0.000$). Bonferroni Post-Hoc test results showed that Red Pidada fruit extract at a dose of 800 mg/kg BW was almost the same as the glibenclamide treatment ($p = 1.000$) and was the best in reduced blood glucose to near normal value.

Keywords : Blood Glucose, Diabetes Melitus, Red Pidada Fruit