

RINGKASAN

EFEKTIVITAS BISKUIT KOMBINASI GANYONG DAUN KELOR DAN AKTIVITAS FISIK TERHADAP TEKANAN DARAH TIKUS SPRAGUE DAWLEY MENOPAUSE

Andini Nur Afifah¹, Yuliana Noor Setiawati Ulvie², Hapsari Sulistyia Kusuma³

^{1,2,3} Program Studi S1 Gizi Fakultas Ilmu Keperawatan dan Kesehatan
Universitas Muhammadiyah Semarang

Tekanan darah tinggi atau yang dikenal dengan istilah hipertensi merupakan faktor risiko utama yang menyebabkan meningkatnya morbiditas dan mortalitas kardiovaskuler pada wanita menopause. Perubahan hormon estrogen dan aktivitas fisik pada wanita menopause menjadi salah satu faktor yang mempengaruhi tekanan darah, serta konsumsi zat gizi kalsium, magnesium dan kalium juga mempunyai peranan penting dalam mekanisme tekanan darah pada wanita menopause. Salah satu sumber zat gizi kalsium, magnesium dan kalium terdapat pada umbi ganyong dan tanaman daun kelor. Penelitian ini bertujuan untuk mengetahui efektivitas biskuit kombinasi ganyong daun kelor dan aktivitas fisik terhadap tekanan darah pada tikus *Sprague Dawley* menopause.

Jenis penelitian true experimental dengan rancangan *randomized pretest-posttes control group design*. Sampel penelitian ini adalah 24 tikus *Sprague Dawley* betina yang dibagi 4 kelompok yang terdiri dari kontrol, pemberian aktivitas fisik, pemberian biskuit serta pemberian biskuit dan aktivitas fisik. Analisis statistik menggunakan uji *Anova One Way* yang dilanjutkan dengan uji *Post Hoc*.

Hasil penelitian ini menunjukkan rata – rata tekanan darah sebelum perlakuan semua kelompok tidak ada beda. Rata – rata tekanan darah tertinggi sesudah perlakuan terdapat pada kelompok kontrol (124,2 mmHg) dan terendah pada kelompok pemberian biskuit (87,2 mmHg). Analisis statistik menunjukkan adanya pengaruh yang signifikan ($p = 0,000$) pemberian aktivitas fisik (3x/minggu selama 30 menit), pemberian biskuit kombinasi ganyong daun kelor (3,6 g/200g BB tikus/hari), dan pemberian biskuit kombinasi ganyong daun kelor dan aktivitas fisik selama 28 hari terhadap tekanan darah tikus. Pemberian biskuit kombinasi ganyong daun kelor merupakan perlakuan yang paling berpengaruh terhadap tekanan darah.

Kata kunci : ganyong, daun kelor, aktivitas fisik, tekanan darah, menopause

THE EFFECTIVENESS OF CANNA TUBER AND MORINGA LEAF BISCUITS AND PHYSICAL ACTIVITY TOWARDS THE BLOOD PRESSURE OF SPRAGUE DAWLEY MENOPAUSE RATS

Andini Nur Afifah¹, Yuliana Noor Setiawati Ulvie², Hapsari Sulistyia Kusuma³
^{1,2,3} S1 Nutritional Science Study Program, Faculty of Nursing and Health Science University of Muhammadiyah Semarang

ABSTRACT

Blood pressure or also known as term of hypertension is a primary risk factor which causes increased morbidity and cardiovascular mortality at menopause women. Change of the hormones-estrogen and physical activity at menopause women to be one of factors that influence the blood pressure. Consuming calcium nutrients, magnesium, and potassium also play a vital role in the blood pressure mechanism at menopause women. One of sources of calcium nutrients, magnesium, and potassium could be gained from a canna tuber and moringa leaf. This research aimed to identify the effectiveness of canna tuber and moringa leaf biscuits and physical activity towards the blood pressure at *Sprague Dawley* menopause rat.

This research used true experimental with randomize pretest-posttest control group design. The research sample used 24 Sprague Dawley female rat that divided into four groups consisting of control, physical activity, biscuits giving, and biscuits giving and physical activity group. Statistical analysis of the research used *Paired T-Test* and *Anova One Way* test that conducted by applying *Post Hoc test*.

Result of the research showed that there was no difference in the average blood pressure before treatment of all groups. The highest average blood pressure after treatment obtained in the control group of (124,2 mmHg) and the lowest was in biscuits giving group of (87,2 mmHg). The statistical analysis showed that there was a significant influence of ($p=0,000$) by giving physical activity for 3x a week in a month, by feeding mice with the canna tuber and moringa leaf gained (3,6 g/200g, mice weight/a day), and by giving mice the canna tuber and moringa leaf biscuits and physical activity for 28 days towards the mice blood pressure. Giving the canna tuber and moringa leaf biscuits was the most influential treatment towards the blood pressure.

Keywords : a canna tuber, moringa leaf, physical activity, blood pressure, and menopause