

**PENGARUH EKSTRAK JAMBU BIJI TERHADAP
KADAR HEMOGLOBIN DAN KADAR
FERITIN PADA TIKUS BUNTING**

TESIS

OLEH

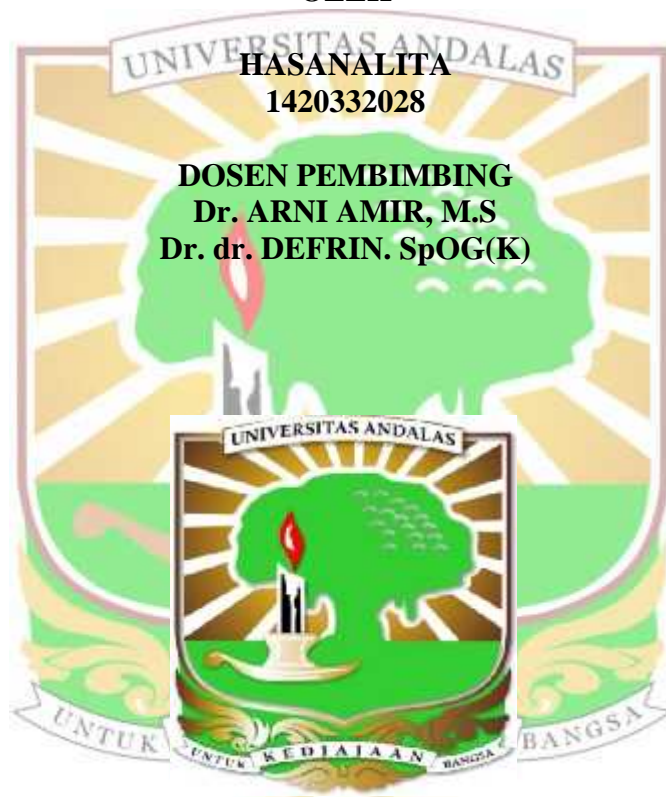
HASANALITA

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ABSTRAK

PENGARUH EKSTRAK JAMBU BIJI TERHADAP KADAR HEMOGLOBIN DAN KADAR FERITIN PADA TIKUS BUNTING

HASANALITA (1420332028)

PEMBIMBING : Dr. ARNI AMIR, M.S DAN Dr. dr. DEFRIN. SpOG(K)

Anemia dialami hampir seperempat dari populasi dunia. Kekurangan zat besi adalah penyebab anemia. Wanita hamil dikatakan anemia menggunakan batas 11g/dL pada trimester pertama dan ketiga, dan 10,5g/dL pada trimester kedua sedangkan feritin berperan sebagai cadangan besi. Jambu biji merupakan sumber vitamin C, satu buah jambu biji mengandung empat kali vitamin C. Peranan vitamin C dalam proses penyerapan zat besi membantu mereduksi besi ferri menjadi ferro. Tujuan penelitian adalah mengetahui pengaruh ekstrak jambu biji terhadap kadar hemoglobin dan kadar feritin pada tikus bunting.

Jenis penelitian adalah eksperimental dengan pendekatan *Post test only design*. Jumlah sampel terdiri 36 ekor tikus putih bunting yang dibagi 4 kelompok, yaitu kelompok kontrol dan 3 kelompok perlakuan I, II, III yang masing-masing diberi volume oral 1%, 2%, 3% ekstrak jambu biji. Penelitian dilaksanakan di Laboratorium Farmasi dan Laboratorium Biomedik Universitas Andalas. Kadar hemoglobin diukur dengan hb test, kadar feritin menggunakan metode ELISA. Uji statistik menggunakan uji *Kruskal Wallis* dan dilanjutkan dengan uji *Mann-Whitney*.

Hasil penelitian kadar hemoglobin menunjukkan adanya perbedaan yang bermakna antara kelompok kontrol dengan kelompok perlakuan $p=0,001$ ($p<0,05$). Rata-rata kadar hemoglobin pada kelompok kontrol 13,956gr/dL, kelompok perlakuan I 12,522gr/dL, kelompok perlakuan II 17,500gr/dL, dan kelompok perlakuan III 16,922gr/dL. Pada kadar feritin adanya perbedaan yang bermakna antara kelompok kontrol dengan kelompok perlakuan $p=0,001$ ($p<0,05$). Rata-rata kadar feritin pada kelompok kontrol 0,90956 μ g/mL, kelompok perlakuan I 1,57800 μ g/mL, kelompok perlakuan II 1,78578 μ g/mL, dan kelompok perlakuan III 1,92767 μ g/mL

Kesimpulan, terdapat pengaruh yang bermakna antara pemberian ekstrak jambu biji pada kadar hemoglobin dan kadar feritin pada tikus bunting

Kata Kunci : Ekstrak jambu biji, Kadar hemoglobin dan kadar feritin

ABSTRACT

EFFECT OF GUAVA EXTRACT ON LEVELS OF HEMOGLOBIN AND FERRITIN IN PREGNANT RATS

HASANALITA

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Anemia accounts for almost a quarter of the world's population. Iron deficiency is a cause of anemia. Pregnant women are said to be anemic using the 11g / dL limit in the first and third trimesters, and 10.5g / dL in the second trimester while ferritin acts as an iron reserve. Guava is a source of vitamin C, one guava fruit contains four times vitamin C. The role of vitamin C in the process of absorption of iron helps reduce ferric iron to ferro. The aim of the study was to determine the effect of guava extract on hemoglobin levels and ferritin levels in pregnant rats.

This type of research is experimental with a Post test only design approach. The number of samples consisted of 36 pregnant white rats divided into 4 groups, namely the control group and 3 treatment groups I, II, II, each of which was given an oral volume of 1%, 2%, 3% guava extract. The research was carried out at the Andalas University Pharmacy Laboratory and Biomedical Laboratory. Hemoglobin level was measured by hb test, ferritin level using ELISA method. Test statistics with *Kruskal Wallis* with *Mann-Whitney*

The results of the study of hemoglobin levels showed a significant difference between the control group and the treatment group $p = 0,001$ ($p < 0.05$). The average hemoglobin level in the control group was 13,956gr / dL, treatment group I was 12,522gr / dL, treatment group II was 17,500gr / dL, and treatment group III was 16,922gr / dL. At ferritin levels there was a significant difference between the control group and the treatment group $p = 0,001$ ($p < 0.05$). The average ferritin level in the control group was 0.90956 μ g / mL, treatment group I was 1.57800 μ g / mL, treatment group II was 1.78578 μ g / mL, and treatment group III was 1.92767 μ g / mL

Conclusions, there is the influence of guava extract on hemoglobin levels and ferritin levels in pregnant rats.

Keywords: Guava extract, hemoglobin level and ferritin level