

**UJI EFEKTIVITAS EKSTRAK DAUN PEPAYA (*Carica papaya L.*) UNTUK
MENINGKATKAN JUMLAH TROMBOSIT PADA MENCIT (*Mus musculus*)**

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ABSTRAK

Trombositopenia merupakan keadaan dimana trombosit dalam sistem sirkulasi jumlahnya dibawah normal (150.000-350.000/ul darah). Trombositopenia disebabkan oleh beberapa hal, yaitu kegagalan produksi trombosit, peningkatan konsumsi trombosit, distribusi trombosit abnormal, dan kehilangan akibat dilusi. Daun pepaya mengandung alkaloid, karpain, enzim papain, vitamin C dan vitamin E, Kandungan vitamin dan mineral yang terkandung dalam daun pepaya dapat membantu untuk meningkatkan hemoglobin, hematokrit, sel darah merah, trombosit dan isi total protein. Tujuan penelitian ini adalah untuk mengetahui apakah daun pepaya mampu meningkatkan kadar trombosit atau tidak. Metode penelitian yang digunakan adalah metode eksperimental yang dilakukan di Laboratorium dengan desain penelitian Post test Control Group Design. penelitian ini bersifat eksperimen menggunakan mencit jantan galur swiss Webster sebagai sampel, ekstrak daun pepaya sebagai bahan alami dalam meningkatkan jumlah trombosit pada mencit, dengan 3 variasi dosis. Dosis I 100mg (0,39 mg/BB mencit), dosis II 300mg (1,17 mg/BB mencit), dan dosis III 600mg (2,34 mg/BB mencit) sebanyak 0,5 ml. Pada kelompok kontrol positif diberikan obat trolit dengan dosis 10,4 mg/BB mencit sebanyak 0,3 ml dan pada kelompok kontrol negatif hanya diberikan aquadest. Pemeriksaan dan perhitungan jumlah trombosit dilakukan dengan cara langsung dengan menggunakan metode tabung (Breckner-Cronkite). Berdasarkan hasil penelitian semua variasi ekstrak daun pepaya dapat meningkatkan jumlah sel trombosit. Rerata peningkatan jumlah trombosit pada dosis I (245.000 sel/mm³ menjadi 549.000 sel/mm³) dosis II (244.000 sel/mm³ menjadi 566.000 sel/mm³) dan dosis III (266.000 sel/mm³ menjadi 636.000 sel/mm³) . Analisis data statistik One Way Anova didapatkan hasil signifikan dengan nilai $P < 0,05$.

Kata kunci : Trombosit, Daun pepaya

ABSTRACT

Platelets are the part of the blood that plays the most important role when blood vessels are damaged or the skin is injured and leaks, resulting in blood out of the vessels or bleeding. In humans, normal platelet counts range from 150,000- 400,000 cells / μ l of blood. If a person's platelet level is less than 150,000 cells / μ l of blood, then that person has a deficiency of platelets or what is commonly known as thrombocytopenia. Papaya leaves contain alkaloids, karpain, papain enzymes, vitamin C and vitamin E, the content of vitamins and minerals (calcium, magnesium, sodium, potassium, manganese, iron) contained in papaya leaves can help to increase hemoglobin, hematocrit, red blood cells, platelets and the total protein content. The purpose of this study was to determine whether papaya leaves were able to increase platelet levels or not. The research method used was an experimental method carried out in a laboratory with a Post test Control Group Design research design. This study used test animals, namely 30 mice. These animals were divided into 5 groups where each group consisted of 5 mice, namely the negative control group, the positive control group and the treatment group which were given papaya leaf extract. The research data were processed statistically, in the Normality Test based on Shaphiro-Wilk, and the results of the data were normally distributed because the p value was > 0.05 . The data was continued in the Homogeneity Test based on Levene Statistic, and obtained homogeneous data with a value of $p > 0.05$. Then proceed to the One Way ANOVA Test. The one way Anova test aims to determine whether there is a difference in the average between more than two treatments, based on these results all groups of data variables differ significantly because of the p value < 0.05 . Based on the results of the research that has been done, it can be concluded that the papaya leaf extract can increase the platelet count in mice (*Mus musculus L*) by helping to increase the number of platelets in experimental animal mice (*Mus musculus L*) male Swiss Webster strain.

Key words: platelets, papaya leaves