

**PENGARUH PENAMBAHAN EKSTRAK DAN FILTRAT
BAWANG PUTIH (*Allium sativum l. var solo garlic*) TERHADAP
NILAI *IMMATURE PLATELET FRACTION* (IPF)
PADA PENDERITA DIABETES MELITUS**

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ABSTRAK

Immature Platelet Fraction (IPF) merupakan trombosit muda sedikit lebih besar dari trombosit matang, masih mengandung sisa RNA dan mudah terdegradasi menjadi trombosit. Pada pasien diabetes melitus dengan diagnosa *Idiopathic Thrombocytopenic Purpura* dan menderita *EDTA-Dependent Pseudothrombocytopenia* dilakukan pemeriksaan IPF dengan spesimen darah EDTA diperoleh hasil nilai IPF 49,8%, selanjutnya dilakukan pengulangan dengan spesimen darah natrium sitrat diperoleh hasil nilai IPF 5,1%. Penderita diabetes melitus dengan kontrol glikemik buruk memiliki nilai IPF cenderung tinggi karena hiperglikemia dapat meningkatkan aktivasi trombosit yang memicu terjadinya agregasi trombosit. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan ekstrak n-heksan dan filtrat bawang putih (*Allium sativum l. var solo garlic*) terhadap nilai IPF pada penderita diabetes melitus. Jenis penelitian yang digunakan adalah penelitian kuantitatif dengan rancangan eksperimental semu. Dilakukan lima perlakuan terhadap lima spesimen darah K₃EDTA penderita diabetes melitus dengan penambahan ekstrak dan filtrat bawang putih tunggal (*Allium sativum l. var solo garlic*) yang diharapkan memberikan pengaruh terhadap nilai *Immature Platelet Fraction* (IPF). Terdapat variasi hasil pada setiap penambahan variasi volume, dan pada konsentrasi volume 50µL diperoleh perubahan hasil nilai IPF dan trombosit sesuai yang diharapkan. Penambahan variasi volume 50µL dan 100 µL ekstrak n-heksan dan filtrat bawang putih (*Allium sativum l. var solo garlic*) tidak berpengaruh signifikan terhadap nilai IPF pada penderita diabetes melitus. Namun terdapat pengaruh efek klinis.

Kata kunci: *Immature Platelet Fraction*, Diabetes Melitus, Bawang Putih Tunggal (*Allium sativum l. var solo garlic*)

**EFFECT OF ADDITION GARLIC EXTRACT AND FILTRATE
(*Allium sativum l. var solo garlic*) ON THE VALUE OF
IMMATURE PLATELET FRACTION (IPF)
IN PATIENT WITH DIABETIS MELLITUS**

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ABSTRACT

*Immature Platelet Fraction is young platelets slightly larger than mature platelets, which still contain RNA and easily degraded into platelets. In a patient with diabetes mellitus who diagnosed Idiopathic Thrombocytopenic Purpura and suffered EDTA-Dependent Pseudothrombocytopenia, the result of IPF measurement with EDTA spesimen is 49,8%, the result of repeated measurement of Immature Platelet Fraction with sodium citric acid spesimen result is 5,1%. The IPF's result of diabetics with poor control has tended to a high result of IPF because hyperglycemia can increase platelet's activation that triggers platelet's aggregation. This research aims to determine the effect of adding garlic extract and filtrate (*Allium sativum L. var solo garlic*) as in vitro an anti-aggregation on the value of immature platelet fraction in diabetics. The type of this research is quantitative research with the design of a quasi-experiment. K3EDTA blood specimen in patients with diabetes mellitus was treated with five treatments with the addition of pearl garlic extract and filtrate (*Allium sativum l. var solo garlic*) which is expected to affect the result of immature fraction platelets. **Those** are a variety of the IPF's results, and an extract variety of 50µL obtained changes the result of IPF and Platelet as needed. But based on the ANOVA test, the value of sig. is 0.968 ($p > 0.05$), there is no significant effect with volume variations. But based on the Acceptable Limit of Error test, there is an effect of a variety addition on the result of immature platelet fraction in patients with diabetes mellitus.*

*Keywords: Immature Platelet Fraction, Diabetes Mellitus, Pearl Garlic (*Allium sativum l. var solo garlic*)*