

PERBEDAAN JUMLAH TROMBOSIT METODE IMPEDANCE DAN FLOWCYTOMETRI PADA PENDERITA TROMBOSITOPENIA

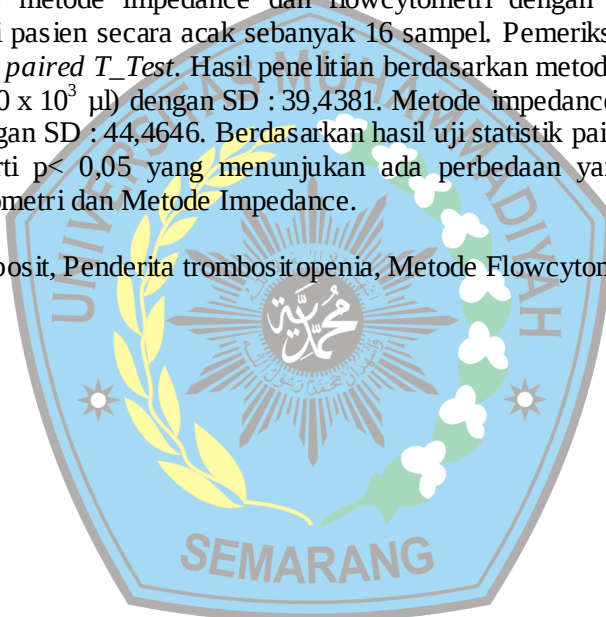
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ABSTRAK

Hitung Jumlah trombosit cara otomatis dilakukan dengan dua metode yaitu flowcytometri dan impedance yang mempunyai prinsip berbeda. Flowcytometri berdasarkan ukuran serta morfologi sel sedangkan impedance berdasarkan ukuran sel saja. Trombositopenia merupakan keadaan dimana jumlah trombosit kurang dari 150.000 μl . Tujuannya adalah untuk mengetahui perbedaan jumlah trombosit penderita trombositopenia metode impedance dan flowcytometri dengan desain penelitian analitik. Sampel darah diambil dari pasien secara acak sebanyak 16 sampel. Pemeriksaan jumlah trombosit yang diperoleh diperlakukan uji *paired T-Test*. Hasil penelitian berdasarkan metode flowcytometri didapatkan rerata $68 \times 10^3 \mu\text{l}$ ($23 - 130 \times 10^3 \mu\text{l}$) dengan SD : 39,4381. Metode impedance didapatkan rerata $83 \times 10^3 \mu\text{l}$ ($31 - 158 \times 10^3 \mu\text{l}$) dengan SD : 44,4646. Berdasarkan hasil uji statistik paired t-test didapatkan hasil p sebesar 0.017 yang berarti $p < 0,05$ yang menunjukkan ada perbedaan yang signifikan hasil jumlah trombosit metode flowcytometri dan Metode Impedance.

Kata kunci : Jumlah Trombosit, Penderita trombositopenia, Metode Flowcytometri dan Impedance.



THE DIFFERENCE OF TROMBOCYTIC NUMBER IN IMPEDANCE AND FLOWCYTOMETRY METHODS WITH TROMBOCYTOPENIA PATIENTS

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ABSTRACT

Automatic platelet accounting is done using two methods, flowcytometry and impedance which have different principles. Size-based flowcytometry and cell morphology are similar to impedance based on cell size only. Thrombocytopenia is a condition where platelet counts are less than $150,000 \mu\text{l}$. The aim is to determine the difference in platelet counts with thrombocytopenia patients with impedance and flowcytometry methods with analytical research design. Blood samples were taken from patients randomly as many as 16 samples. Examination of the platelet count obtained is treated by paired T_Test test. The results of the study based on the flowcytometry method obtained mean $68 \times 10^3 \mu\text{l}$ ($23 - 130 \times 10^3 \mu\text{l}$) with SD: 39.4381. The impedance method obtained a mean of $83 \times 10^3 \mu\text{l}$ ($31 - 158 \times 10^3 \mu\text{l}$) with SD: 44.4646. Based on the results of the paired t-test statistical test, it was obtained p results of 0.017, which means that $p < 0.05$, which showed that there were significant differences in the results of platelet counts flowcytometry methods and the Impedance Method.

Keywords: Platelet Amount, Thrombocytopenia Patients, Flowcytometry Method and Impedance.

